

Foreword to Revisiting the Public Utility

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In *Munn v. Illinois* the U.S. Supreme Court upheld state price regulation of grain elevators.¹ The Court took some inspiration from Lord Mathew Hale’s notion that a business “affected with a public interest” requires special regulatory attention.² “Every ferry,” Lord Hale wrote in the Seventeenth Century, “ought to be under public regulation, to wit: that it give attendance at due time, keep a boat in due order, and take a reasonable toll.”³

As it spread throughout the United States, the idea of the public utility was undeniably aligned with progressive political reform.⁴ At the height of the Gilded Age in 1887, Congress drew on it to give the Interstate Commerce Commission (ICC) authority to regulate railroads and their rates as common carriers.⁵ Early in the twentieth century, American reformers such as John Commons drafted state laws granting monopoly franchises to electric and natural gas utilities, subjecting them to customer service obligations (a precursor to the modern notion of “universal service”) and price regulation.⁶ While he was running for President, New York Governor Franklin D. Roosevelt celebrated the benefits of a privately-owned, regulated public utility for the development of hydroelectric

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1. *Munn v. Illinois*, 94 U.S. 113 (1876).

2. *See id.* at 127; *see also* Walton H. Hamilton, *Affection with a Public Interest*, 39 YALE L.J. 1089, 1092-99 (1930) (discussing the history of Lord Hale’s phrase and its adoption by the Court in *Munn*).

3. MATHEW HALE, *De Portibus Maris*, in A TREATISE, IN THREE PARTS (c. 1670), reprinted in 1 A COLLECTION OF TRACTS RELATIVE TO THE LAW OF ENGLAND FROM MANUSCRIPTS 1, 77-78 (Francis Hargrave ed., London, T. Wright 1787).

4. *See generally* BARBARA H. FRIED, *THE PROGRESSIVE ASSAULT ON LAISSEZ FAIRE: ROBERT HALE AND THE FIRST LAW AND ECONOMICS MOVEMENT 162-65, 196-97* (2009) (noting how progressives such as Hale looked to public utility regulation as a model for more extensive governmental control over property rights, including the regulation of exorbitant profits); William J. Novak, *The Public Utility Idea and the Origins of Modern Business Regulation*, in CORPORATIONS AND AMERICAN DEMOCRACY 139, 157 (Naomi R. Lamoreaux & William J. Novak eds., 2017) (discussing “a more generalized and autonomous concept of the public interest” as the “final culminating piece of the public utility idea”).

5. *See* RICHARD D. STONE, *THE INTERSTATE COMMERCE COMMISSION AND THE RAILROAD INDUSTRY: A HISTORY OF REGULATORY POLICY* (1991).

6. Novak, *supra* note 2.

power as a way to structure an industry to benefit the many, rather than the few.⁷ And during the New Deal, Congress drew on public utility ideas to attack economic concentration when it broke up utility holding companies and gave federal regulators authority over interstate gas and electric power rates.⁸

Public utility regulation also has deep grounding in neoclassical economic theory. The economic argument that natural monopoly regulation is necessary to promote economic efficiency and consumer welfare served as an intellectual anchor for economic regulation of water and sewage services, railroads, airlines, trucking, natural gas, electric power, and telecommunications.⁹ All of these industries experimented with various forms of franchise regulation, service obligations, and price regulation—establishing a fairly consistent set of tasks for regulators across various public utility industries. Public utility was theorized as a form of incomplete contract, which offered financial stability to the regulated firm (helping to lower its costs of capital) while also protecting consumers from the abuses associated with monopoly.¹⁰

In the 1970s, however, the pressures of inflation led many firms subject to public utility regulation to seek relief from it.¹¹ Excess capacity and high prices led many consumers to question its success too. Alfred Kahn, Chair of the Citizens Airline Board (CAB) under President Carter, sought to dismantle airline price regulation. This began a national movement to restructure industries ranging from airlines, trucking, railroads, telephony, natural gas, and electric power.¹² Centralized government regulation geared towards consumer protection was replaced (to one degree of another) with competitive (or at least “contestable”) markets, and some features of traditional public utility industries were even “deregulated.”¹³ A few of public utility regulation’s iconic institutions, such as the ICC and CAB, were eliminated entirely¹⁴—though it also

7. *A National Yardstick to Prevent Extortion Against the Public and to Encourage the Wider Use of that Servant of the People—Electric Power*, PUB. PAPERS & ADDRESSES FRANKLIN D. ROOSEVELT 727 (1932).

8. For a critical examination, see Paul G. Mahoney, *The Public Utility Pyramids*, 41 J. LEGAL STUD. 37, 38 (2012) (suggesting that economic concentration in the energy sector in the 1920s was largely aimed at reducing capital costs).

9. See Herbert Hovenkamp, *Technology, Politics and Regulated Monopoly: An American Historical Perspective*, 62 TEX. L. REV. 1263 (1984).

10. George L. Priest, *The Origins of Utility Regulation and the “Theories of Regulation” Debate*, 36 J.L. & ECON. 289 (1993).

11. See Stefan H. Krieger, *Problems for Captive Ratepayers in Nonunanimous Settlements of Public Utility Rate Cases*, 12 YALE J. ON REG. 257, 279-82 (1995).

12. See STEPHEN BREYER, *REGULATION AND ITS REFORM* (1982); Alfred E. Kahn, *Deregulation: Looking Backward and Looking Forward*, 7 YALE J. ON REG. 725 (1990).

13. See, e.g., Elizabeth E. Bailey & William J. Baumol, *Deregulation the Theory of Contestable Markets*, 1 YALE J. ON REG. 111 (1984).

14. While the ICC was eliminated in 1995, some of its remaining regulatory responsibilities were assigned to a new agency, the Surface Transportation Board. See ICC Termination Act of 1995, Pub. L. 104-88, 109 Stat. 803 (1995) (codified in scattered sections of 49 U.S.C. (2012)).

was said that one of the greatest surprises about deregulation was how little really occurred.¹⁵

Economic criticisms of public utility regulation provided intellectual momentum for this reform initiative. Harold Demsetz began to question the logic of traditional economic regulation in the 1960s,¹⁶ and public choice theory and the Chicago School rose to prominence in its critique of industry regulation during the 1970s.¹⁷ Many economists celebrated the allocative efficiency of competitive markets, calling into question the core features of public utility regulation: Franchise regulation was criticized for favoring a few at the costs of the many, inhibiting competition and innovation. Customer service obligations facilitated cross-subsidies in service costs and, at the extreme, served to limit customer choices. And price regulation was criticized for encouraging rent seeking and creating allocative inefficiencies. Some even declared the “end” of natural monopoly regulation for industries such as electric power.¹⁸

But for the most part, the idea of the public utility and the legal institutions it supported have proved to be durable. Public utility regulation may even be experiencing a new renaissance. Even with competition in formerly regulated industries, such as telecommunications and energy, it is recognized that public utility regulation remains relevant.¹⁹ With the proliferation of modern “network” industries, such as telecommunications, the idea of the public utility is being invoked as a way of addressing new problems associated with private control of infrastructure. Concerns about network efficiency and the ownership and control of important information are giving rise to new calls for the extension of regulation, especially in confronting economic concerns with the modern information economy.²⁰ Regulators are being called on to extend features of public utility regulation into new frontiers, including net neutrality,²¹ certain aspects of environmental regulation,²² and health care.²³

The essays in this special issue of *Yale Journal on Regulation* challenge the notion that public utility ideas are obsolete or irrelevant to modern issues in

15. Robert W. Crandall, *Surprises from Telephone Deregulation and the AT&T Divestiture*, 78 AM. ECON. REV. 323, 323 (1988).

16. Harold Demsetz, *Why Regulate Utilities?*, 11 J.L. & ECON. 55 (1968).

17. See, e.g., George J. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3 (1971); Sam Peltzman, *Toward a More General Theory of Regulation*, 19 J.L. & ECON. 211 (1976).

18. Peter Z. Grossman & Daniel H. Coles, *Introduction*, in *THE END OF A NATURAL MONOPOLY: DEREGULATION AND COMPETITION IN THE ELECTRIC POWER INDUSTRY* (Peter Z. Grossman & Daniel H. Coles eds., 2003).

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

20. BRETT M. FRISCHMANN, *INFRASTRUCTURE: THE SOCIAL VALUE OF SHARED RESOURCES* (2012).

21. TIM WU, *THE MASTER SWITCH: THE RISE AND FALL OF INFORMATION EMPIRES* (2011).

22. See William Boyd, *Public Utility and the Low-Carbon Future*, 61 UCLA L. REV. 1614 (2014).

23. See Nicholas Bagley, *Medicine as a Public Calling*, 114 MICH. L. REV. 57 (2015).

economic regulation.²⁴ They give reasons to question whether public utility regulation has fallen short of its aspirations and goals, and show that there are some good reasons to question many embedded regulatory practices. At the same time, they demonstrate how public utility ideas are foundational to many of modern regulatory law's tasks. They show how the future of the public utility remains a vibrant, evolving area of inquiry for law and economic regulation.

We cluster the essays in this issue around public utility regulation's core rationales and its scope, its implications for innovation and industry stability, and its evolving approach to price regulation. The endeavor of revisiting the public utility helps to better understand how it will continue to evolve and play an important role as we address new economic problems in the twenty-first century.

I. The Scope of Public Utility Regulation

Textbook economic considerations, such as preventing welfare losses associated with natural monopoly, continue to sit at the center of most academic and policy debates surrounding public utility regulation. However, public utility regulation's rationales have never been limited to the neoclassical economics framework's blinkered notion of economic efficiency. The essays demonstrate how, in addition to promoting efficiency, modern debates surrounding public utility regulation continue to reflect a rich array of societal concerns, including providing for public goods, advancing social welfare, and addressing the morality of business operations.

Drawing on Progressive-era conceptions of the public utility, Sabeel Rahman offers an expansive view of how public utility regulation might be adapted to the modern world.²⁵ He finds deep *moral* content within the public utility model of regulation. He thus eschews a narrowly economic perspective. Rahman delineates a category of resources that he terms "social infrastructure" that are practical necessities for participating in social and economic life. These resources (1) exhibit scale economies, (2) are inputs into a wide range of downstream uses, and (3) are vulnerable to exploitative private power or domination. When it comes to social infrastructure, Rahman submits, regulation should seek to assure affirmative provision to the populace while also proscribing exploitative or discriminatory management.

Rahman's capacious definition of social infrastructure lends itself to a correspondingly broad suite of legal and regulatory techniques, ranging from regulatory supervision, to the employment of "firewalls" between business lines, to public options, to outright public provisioning. He illustrates the range of options available by examining two examples: the Flint, Michigan water crisis

24. These essays were originally presented along with other papers at a Spring 2017 roundtable at Vanderbilt Law School. This conference was sponsored by the Vanderbilt Law School Programs in Law & Business and Law & Government.

25. K. Sabeel Rahman, *Infrastructural Regulation and the New Utilities*, 35 YALE J. ON REG. 911 (2018).

and the (now perennial) net neutrality debate. Like the Progressive-era reformers before him, Rahman envisions the public utility model as an important tool for combating concentrations of private power and realizing democratic governance.

Richard Markovits's contribution views broad extension of public utility regulation of private firms with much greater skepticism.²⁶ He develops a precise and sophisticated understanding of when economic theory would support regulating a "business affected with the public interest." For him, however, extending public utility regulation to any industry based on public interest concerns without an effort to precisely identify a market imperfection can produce inefficiency in the allocation of resources, harming investors, consumers, and workers.

Markovits explains how traditional price regulation produced one such inefficiency by encouraging some regulated firms to make great investments in durable assets rather than labor, a problem known to economists as the "Averch-Johnson-Wellisz" effect. As Markovits suggests, the failure of price regulation to produce efficient results does not mean that government lacks any role in regulating industry, as some have argued. Rather, the allocative inefficiencies sometimes produced by price regulation invites other institutional solutions to market failures. He maintains, for instance, that public ownership and production is sometimes more desirable as an economic matter than applying public utility price regulation principles to private firms. He also expresses caution about the use of morality as a justification for price regulation, and warns that price discrimination that is based on a customer's willingness to pay is only problematic where it is motivated by a morally opprobrious reason. Markovits concludes by recommending some reforms to improve the institutional operation of existing public utility regulation.

II. Innovation and Stability

In many industries—including, but not limited to, telecommunications and financial services—public utility regulation has long served to anchor debates surrounding consumer protection. This has implications for competition and innovation—an important set of concerns at the center of modern applications of public utility regulation.

Christopher Yoo's critique of extending common carriage regulation as a legal basis for network neutrality illustrates some potential problems with applying public utility-type regulation to a dynamically changing industry.²⁷ Common carriage rationales for regulation not only involve nondiscrimination—which prevents charging different prices to similarly situated customers. Yoo highlights that where a company is vertically integrated it also require some form

26. Richard Markovits, "Public Utility" Regulation: Some Economic and Moral Analyses, 35 *YALE J. ON REG.* 875 (2018).

27. Christopher S. Yoo, *Common Carriage's Domain*, 35 *YALE J. ON REG.* 991 (2018).

of rate regulation, since a nondiscriminatory high price can have the same adverse effect as would discriminatory prices. He suggests that this is why the Federal Communications Commission (FCC)'s emphasis on nondiscrimination also requires some form of ex ante or ex post rate regulation.

In the context of water, natural gas, and electric power, Yoo maintains, common carriage regulation's success has depended on five basic factors: (1) commodity products, (2) simple interfaces, (3) stability and uniformity in the transmission technology, (4) deployment of the transmission network, and (5) stable demand and market shares. He argues, however, that none of these five factors points strongly in the direction of common carriage treatment for broadband Internet access. Broadband internet services, for example, are not a single commodity but are diverse, and regulating them as a single commodity can impair network providers from offering different forms of prioritized services. Establishing rates could facilitate collusion in the standardization of services. Rapid, dynamic changes in technology make common carriage regulation even more challenging in this context, to the extent that new technologies would create a wedge between replacement cost and historical costs. Yoo also highlights how common carriage does a poor job of addressing congestion costs, especially when there is a significant need to expand infrastructure. While he does not assign a particular weight to each of the five factors that have led to successful common carriage regulation elsewhere, his analysis concludes that the overall weight of these factors advises against the FCC regulating net neutrality on this basis.

Prasad Krishnamurthy's contribution speaks to the systemic effects of competition in banking.²⁸ New Deal bank regulation employed rate regulation, geographic segmentation, activity constraints, and entry restriction to limit competition in the banking sector. Over time these regulatory constraints eroded, a consequence of market and technological developments as well as shifting intellectual currents, not to mention regulatory acquiescence. Both the structure of these regulatory constraints and the timing of their creation and unwinding mirrored similar U.S. federal regulatory programs in the telecommunications and transportation industries.

Most analysts have cheered the phase-out of constraints on bank competition. Krishnamurthy, though, sounds a note of caution. Whatever its faults, the heyday of New Deal bank regulation coincided with a period of remarkable stability in U.S. banking. By contrast, the demise of these constraints coincided with—and perhaps occasioned—a period of greater instability. Krishnamurthy acknowledges that the New Deal system produced socially costly rents for banks. But these rents may have had an underappreciated upside by encouraging banks to play it relatively safe while also enlisting them to monitor the migration of banking activity outside the regulatory perimeter. It is at least

28. Prasad Krishnamurthy, *George Stigler on His Head: The Consequences of Restrictions on Competition in (Bank) Regulation*, 35 YALE J. ON REG. 823 (2018).

plausible, Krishnamurthy submits, that the stability benefits of limiting bank competition outweigh the costs. Economic rents, in other words, can be a stabilizing force. For better or worse, this regulatory path has not been pursued in the aftermath of the Global Financial Crisis.

III. Revisting Price Regulation

The essays in this issue also show how modern economic problems challenge the traditional tools of public utility regulation to evolve in some new (or at least unconventional) ways. In many industries, such as energy, public utility regulation's most visible—and most controversial—tool is price regulation. Traditional forms of price regulation, such as setting rates based on cost of service, have met with mixed success. In some contexts it has inhibited efficiency and competitive markets, harming the very consumers that the regulation was designed to protect in the first place. Still, price regulation remains an essential feature of public utility regulation. Regulators need not reject it entirely as there are considerable opportunities to improve upon it. Determining whether and how price regulation should apply depends crucially on structural features of the relevant industry.

Daniel Schwarcz questions the rationale for rate regulation in modern property and casualty insurance markets. The insurance business in the United States is regulated primarily at the state level.²⁹ In the early twentieth century—coincident with the emergence of public utility regulation—many states began regulating insurance rates. Insurance rate regulation persists in about half of states today. Schwarcz shows that, as a historical matter, insurance rate regulation emerged from the view that insurance markets have natural monopoly characteristics. Actuarial analysis required access to loss data; sharing of loss data across firms was desirable, even necessary, but it also involved anticompetitive coordination with respect to insurance premiums and policy forms. Rate regulation emerged as the standard policy response.

Schwarcz contends that modern conditions have made such rate regulation unnecessary and, indeed, counterproductive. Loss data is now shared via intermediaries that are themselves extensively regulated and that produce only specifically authorized types of data. There is very little risk, Schwarcz argues, that modern data-sharing practices could give rise to either explicit or tacit collusion with respect to prices or product design. In fact, modern data sharing is *pro*competitive rather than *anti*competitive: it lowers barriers to entry and allows smaller insurance firms to stay in business. On top of that, the largest insurers no longer need aggregate industry loss data; they can rely on their own internal data for underwriting. Schwarcz presents evidence that consumers in

29. Daniel Schwarcz, *Ending Public Utility Style Rate Regulation in Insurance*, 35 YALE J. ON REG. 941 (2018).

states that have opted to deregulate insurance rates have generally benefited, or at least have not suffered significant adverse consequences. While insurance markets are afflicted with various market failures that justify regulation—including information asymmetries and behavioral biases—rate regulation is not responsive to these problems.

William Boyd’s contribution probes the historical and intellectual origins of utility price regulation to draw important lessons for its modern application.³⁰ He begins with an assessment of the medieval idea of the “just price,” which aimed to address the interpersonal market exchange, or what Aristotle identified as an issue of commutative rather than distributive justice. Boyd shows how scholastic and economic historians have presented two primary (and at times contrasting) accounts of the just price in market exchange—one based on the cost of service, and another (perhaps more revisionist) account based on voluntary exchange in a competitive market. He also presents a more normative interpretation of the just price, as grounded in the notion of a moral economy that requires fairness in exchange between buyers and sellers.

Boyd presents twentieth-century utility price regulation as reflecting a “blending of the older ideas of just price with more modern concerns with natural monopoly and the regulatory challenges posed by large, capital-intensive network industries.”³¹ In other words, the just price provides an intellectual underpinning for the “just and reasonable” price mandate that Congress and state legislatures have charged utility regulators to implement in many industries, including electric power, natural gas, and telecommunications. This insight allows Boyd to make sense of how agencies like the Federal Energy Regulatory Commission (FERC) have moved away from the traditional evaluation of cost-of-service utility rates and instead adopted market-based rates. At the same time, Boyd cautions, FERC’s market-based rates cannot be understood as simple ratification of any non-coercive market transaction. Rather, in framing the role of a utility price regulator in a competitive market, the just price origins of rate regulation stress the significance of regulators paying attention to fairness behind various transactions. Understood as such, regulators today implementing competitive markets in formerly-regulated contexts still have some obligation to be attentive the normative dimension of market exchange, not to merely set a price based on cost or on whether a market transaction was voluntary.

James Ming Chen argues modern public utility rate regulation could benefit from paying greater attention to the lessons of modern corporate finance.³² He views the legislative command that the government ensure “just and reasonable rates” for regulated services as a highly specialized application of financial

30. William Boyd, *Just Price, Public Utility, and the Long History of Economic Regulation in America*, 35 YALE J. ON REG. 721 (2018).

31. *Id.*

32. James Ming Chen, *Speculative Undertakings: Rate Regulation as a Branch of Corporate Finance*, 35 YALE J. ON REG. 779 (2018).

economics—a regulatory exercise in capital asset pricing. Chen argues that insights from corporate finance would predict a relatively high cost of capital for industries facing large, capital-intensive assets investments over long time horizons, along with uncertainty about future prices and regulation. He surveys how various approaches to rate regulation today rely heavily upon index-based and algorithmic alternatives to conventional cost-of-service ratemaking. He also illustrates how incentive-based regulation, or price-level regulation, serves as a popular alternative to cost-of-service ratemaking, and through its use of broadly gauged price indexes such as the CPI and industry-specific x -factors, it too is conceptually indistinguishable from an index-based system of rate regulation.

Chen cautions, however, about potential antitrust concerns with relying too heavily on market index approaches, to the extent that they facilitate price-gathering and information-sharing among rivals as potentially anticompetitive practices. He also warns about accepting new forms of price regulation that do nothing but gauge just and reasonable rates without any critical analysis of structural market conditions. Ultimately price regulation needs to incorporate a sophisticated understanding of financial risk—an endeavor that by necessity will require regulators to be attentive to corporate finance models. On Chen's view, referring to market-set rates without careful evaluation of market conditions, including risk, would be reversible error. Still, judicial deference has a place: He concludes that courts should be deferential to the extent that these matters are predictive in nature—but that they also should require agencies implementing price regulation to adopt an appropriate index and to explain the proper relationship between market data and the zone of reasonableness in rate setting.

Conclusion

The public utility has a rich history but it is hardly moribund. The essays in this special issue show that it remains central to modern debates surrounding economic regulation. Without doubt, in contexts where the public utility has long anchored regulation, it will continue to undergo reform and refinement. Revisiting the public utility idea gives us important stories of successes and failures, and helps us to better understand its goals and rationales. Public utility principles were fundamental to economic regulation in the past, and we think that the essays in this special issue show that they will continue to prove important to designing institutions and regulatory tools to address new economic problems.

