ECONOMIC THEORIES OF REGULATION AND ELECTRICITY RESTRUCTURING

John S. Moot^{*}

I. INTRODUCTION

The regulation of American industry has fascinated social scientists for many years. There was a time when political scientists and economists presumed regulation beneficial in remedying market failures. That view began to change in the 1960s when empirical studies suggested regulation often did more harm than good, creating producer rents rather than efficiency. According to one of the most influential thinkers of this period, Nobel laureate economist George Stigler, the reason was that regulation was a public good being allocated by politicians to the highest bidder, and producers were more likely than not to prevail over consumers in that political marketplace.¹ Many forms of regulation thereafter became suspect as creating barriers to entry and regulating price as a means of providing supracompetitive rents to producers, rather than correcting market failures. Economic theories of regulation also exposed other warts, such as regulation's tendency to cross-subsidize high cost consumers by imposing higher rates to low-cost consumers.² Political scientists also began to take a closer look at government regulation and bureaucracy.³

Almost as quickly as these theories of regulation took hold, however, the U.S. Congress and certain federal regulatory commissions began dismantling entry and price regulation of many industries. This deregulatory movement included the airline, trucking, railroad, telecommunications, natural gas, and banking industries. This trend surprised social scientists, causing them to reevaluate their previously pessimistic views of government. Derthick and Quirk, political scientists, concluded that this deregulatory wave restored confidence in the American system of government.⁴ Sam Peltzman, the

3. See generally The POLITICS OF REGULATION (James Q. Wilson ed., Basic Books, Inc. 1980) [hereinafter POLITICS OF REGULATION]; JAMES Q. WILSON, BUREAUCRACY: WHAT GOVERNMENT AGENCIES DO AND WHY THEY DO IT (Basic Books, Inc. 1989) [hereinafter WILSON].

4. See generally MARTHA DERTHICK & PAUL J. QUIRK, THE POLITICS OF DEREGULATION (Brookings Inst. 1985) [hereinafter DERTHICK & QUIRK].

[•] John S. Moot is a Partner at Skadden, Arps, Slate, Meagher & Flom, LLP. Mr. Moot represents electric utilities in regulatory proceedings. He received a B.A. degree from St. Lawrence University and a J.D., cum laude, at the Washington College of Law, American University. The author would like to thank Sam Peltzman for his review and comments on this article.

^{1.} See generally George J. Stigler, The Theory of Economic Regulation, 2 BELL J. ECON. & MGMT. SCI. at 3 (1971) [hereinafter Stigler].

^{2.} See generally Richard A. Posner, Taxation by Regulation, 2 BELL J. ECON. & MGMT. SCI. at 22 (1971) [hereinafter Posner (1971)]; Sam Peltzman, Toward a More General Theory of Regulation, 19 J.L. & ECON. 211 (1976) [hereinafter Peltzman (1976)].

economist who formalized Stigler's theory of regulation, offered a different perspective. In his view, deregulation had occurred in most cases because regulation had ceased to provide supracompetitive rents to producers, thereby leading them to abandon their support for regulation.⁵ Regulatory outcomes, in his view, continued to reflect the central hypothesis of an economic theory of regulation.

The deregulatory wave of the 1970s and 1980s, and the debate over how to explain it, left one major industry largely untouched-the electric utility industry. At the close of the 1980s, the electric utility industry looked much as it had fifty years before: vertically integrated with traditional price and entry regulation. However, it was becoming apparent that one sector of the industry, the generation sector, would likely emerge as competitive. In 1978, a regulatory initiative, the Public Utilities Regulatory Policy Act (PURPA), had reduced barriers to entry in generation for certain technologies.⁶ Perhaps its more significant legacy, however, was that government-set prices designed to induce this new entry turned out to be billions of dollars in excess of market prices. The PURPA was not alone in creating over-market costs. A fleet of nuclear plants with enormous cost overruns were added during the 1980s, and many states burdened electric rates further with programs designed to benefit environmental Yet, as the embedded cost of regulated supply and other constituencies. additions was rising dramatically, the marginal cost of producing electricity was falling rapidly in the short-run due to excess capacity, and in the long-run due to new combined-cycle gas turbine technology. Then, in 1992, Congress lowered barriers to entry for all generation technologies when it passed the Energy Policy Act of 1992.⁷ When the economy fell into recession during the early 1990s, this combination of events-high regulated electric rates, low market prices, ease of entry, and an economic recession—created enormous pressure on traditional regulation of the generation sector.

The dam finally broke in 1994 when the California Public Utilities Commission (CPUC) announced that it would deregulate the generation sector of the California electric industry.⁸ The CPUC's action initiated a wave of reform, with twenty-four states following California's lead by enacting "retail restructuring" legislation over the next several years. The Federal Energy Regulatory Commission (FERC) also began developing pro-competitive policies during the late 1980s. Then, in 1996, the FERC facilitated greater competition in the generation sector by ordering all utilities to provide open and nondiscriminatory access to their transmission grids.⁹ The FERC then followed

^{5.} Sam Peltzman et al., The Economic Theory of Regulation after a Decade of Deregulation, *in* 1989 BROOKINGS PAPERS ON ECONOMIC ACTIVITY: MICROECONOMICS 1, 9–10 (Matin Neil Baily & Clifford Winston eds., 1989) [hereinafter Peltzman et al. (1989)].

^{6.} Public Utilities Regulatory Policy Act of 1978, Pub. L. No. 95-617, 92 Stat. 3117 (1978).

^{7.} Energy Policy Act of 1992, Pub. L. No. 102-486, 106 Stat. 2776 (1992).

^{8.} Order Instituting Rulemaking, *Re Proposed Policies Governing Restructuring of California's Electric Services Industry and Reforming Regulation*, 1994 Cal. PUC LEXIS 336 (C.P.U.C. Apr. 20, 1994) [hereinafter *California Blue Book*].

^{9.} Order No. 888, Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting

this landmark rulemaking with two more rulemakings in 1999¹⁰ and 2002,¹¹ which fostered the creation of regional transmission organizations (RTOs) and regional energy markets, with the purpose being to increase efficiency and lower barriers to entry for independent generators.

However, as quickly as this wave of reform took hold, it abruptly halted. In 2000–2001, the California electricity industry "melted down" with skyrocketing prices, blackouts, and the largest utility bankruptcy in history. Other regions also experienced significant increases in market prices during 2000–2001 as natural gas prices surged and supply and demand tightened. In the wake of the California crisis and rising wholesale market prices, not a single state adopted retail access legislation after 2000, and eight states delayed, suspended, or repealed their retail access programs. The federal regulatory reform effort stalled as well. Only one regional grid operator has been created since June 2000, and the FERC's third rulemaking, the standard market design (SMD) rulemaking, was thwarted by opposition in Congress and the states.

Is there a theory of regulation that can explain the uneven course of electricity restructuring? The purpose of this article is to explore this question. The article's focus is on positive theories of regulation that seek to explain when and in what form regulation (or deregulation) *will* occur, not normative theories of when and in what form regulation (or deregulation) *should* occur. Electricity restructuring is a good test of the former, because it involves a mix of both deregulation and increased regulation and has been marked by tremendous swings in policy direction. Deregulation of the generation sector swept the nation and then contracted. Increased regulation of other portions of the industry—particularly the transmission business and the creation of quasi-governmental entities to operate regional markets—grew steadily, but has since faltered as well.

This article concludes that many aspects of electricity restructuring are broadly consistent with an economic theory of regulation. This is particularly true of Peltzman's hypotheses that: (i) regulation will tend to dampen swings in commodity prices, protecting consumers against severe price increases and producers against economic downturns; (ii) regulation will tend to distribute public goods across various interest groups according to marginal utility, rather than awarding them to a single winning group; and (iii) regulation will tend toward average cost prices, causing low-cost customers to subsidize high-cost customers, a conclusion also reached by Posner.¹² The California electricity crisis is a good example of the first hypothesis; retail access legislation and the

Utilities, [Regs. Preambles 1991–1996] F.E.R.C. STATS & REGS. ¶ 31,036 (1996), 61 Fed. Reg. 21,541 (May 10, 1996) (to be codified at 18 C.F.R. pts. 35, 385) [hereinafter Order No. 888].

^{10.} Order No. 2000, Regional Transmission Organizations, [Regs. Preambles 1996–2000] F.E.R.C. STATS. & REGS. ¶ 31,089 (2000), 65 Fed. Reg. 809 (Jan. 6, 2000) (to be codified at 18 C.F.R. pt. 35) [hereinafter Order No. 2000].

^{11.} FED. TRADE COMM'N, REMEDYING UNDUE DISCRIMINATION THROUGH OPEN ACCESS TRANSMISSION SERVICE AND STANDARD ELECTRICITY MARKET DESIGN: WHOLESALE POWER MARKET PLATFORM WHITE PAPER (2001) [hereinafter FTC WHITE PAPER].

^{12.} W. KIP VISCUSI ET AL., ECONOMICS OF REGULATION AND ANTITRUST 322-45 (MIT Press 2d ed. 1995) [hereinafter VISCUSI ET AL.].

FERC's Order No. 2000¹³ are good examples of the second hypothesis; and many of the rate-setting practices of both state commissions and the FERC are good examples of the third hypothesis.

This article also concludes that information costs are central to understanding the ongoing struggle between producer and consumer interests in the electric industry. Both informational and organizational transaction costs generate the hypothesis that small, cohesive groups, such as producers, will tend to prevail over large, diffuse interests, such as consumers. Producers will tend to prevail because their potential gains from regulation are greater than the transaction costs of influencing government policy (including the cost of organizing and supplying campaign contributions). By contrast, the transaction costs incurred by consumers generally will exceed their gains from influencing government action. This is true for several reasons, not the least of which is that consumers face significant information costs in uncovering regulatory failures that harm them. The costs incurred by any single consumer to uncover such failures will exceed the benefits of her doing so, and the cost of organizing collectively to uncover regulatory failures is generally prohibitive due to the free rider problem, among others.

The importance of information costs is revealed in the many facets of electricity restructuring. Consider, for example, retail restructuring. Twentyfour states adopted retail access legislation in the late 1990s, allowing competitors to compete for the once-captive retail customers of vertically integrated utilities. This movement is explainable, in some measure, through an economic theory of regulation because reduced barriers to entry had dampened the prospects for rents from the utilities' construction of new generation. But this conclusion is, at best, a heavily qualified one. Utilities still faced huge losses from deregulation because their sunken investment was far above the market value of that investment, which is why most utilities initially opposed deregulation. Moreover, an explanation rooted in new entry and declining rents cannot easily overcome the fact that new entry continues to be relatively easy, has occurred in significant amounts in many regions, and is placing downward pressure on future utility profits from regulation. Yet, the retail access movement has all but stopped.

Only closer examination of information costs can supply the answer. In the 1990s, a combination of the visible and costly failures of regulation such as qualifying facilities (QFs) and nuclear plants, and the seemingly large benefits of deregulation due to new entry and low market prices, fostered the conclusion that regulation was a failure. Deregulation sheltered utilities from market efficiencies, and promised to both increase efficiency and cause prices to fall dramatically. Importantly, this confluence of events supplied not only a normative basis for deregulation, but the political impetus as well. Politicians could promise consumers (voters) an immediate price cut through retail access by pointing to the large price gap between market and regulated rates. The consumer interest was therefore at its zenith because (i) information costs (both as to regulatory failures and deregulatory benefits) were low; (ii) the expected

^{13.} Order No. 2000, *supra* note 10.

per capita gains to consumers through deregulation were high; and (iii) the number of consumers (voters) affected was at its peak (since virtually every voter consumes electricity). It was therefore not surprising that utility opposition was not effective in stopping retail access (although it was, as discussed below, effective in moderating its financial impact).

The same factors also explain the demise of retail access. Retail access died at precisely the time (2001) when utility support for it should have been, and indeed was, at its zenith-with stranded cost recovery assured, a shrinking price gap, and Wall Street rewarding deregulated generation companies with high price/earnings ratios. Without a closer examination of the role of information and its impact on the strength of the consumer interest, one would have expected retail access to continue spreading, spurred on by utility support as well as the support of other groups (e.g., independent producers and industrial customers). But the factors present in the 1990s had entirely reversed by 2001. The California meltdown sent political shockwaves across the nation, providing a concrete, if extreme, example of the political risks of supporting retail access Equally important, the regulated-market price gap had all but initiatives. disappeared in most regions due to rising natural gas prices and tightening of supply and demand conditions. Retail access had gone from providing a tax cut to the average consumer (voter) to a regulatory reform effort that posed few consumer benefits and significant political risks. Thus, it is not surprising that the movement so quickly died.

By offering this perspective on electricity restructuring, I am not suggesting that regulation (or deregulation) is governed entirely by political forces. Not all politicians seek continued re-election or re-appointment. Not all their decisions are determined by external pressure groups. It is for this reason, among others, that the predictive power of an economic theory of regulation is admittedly This does not, however, deprive the theory of its usefulness. modest. Individuals do matter, but they are not impervious to pressure groups. There are many obvious examples. CPUC Chairman Fessler had a critical influence on the California restructuring-and is perhaps the reason California was first in the nation-yet pressure groups significantly changed his blueprint for restructuring. FERC Chairman Wood was the principal reason why the FERC proposed the SMD rulemaking; yet, here again, pressure groups were successful in modifying and, perhaps, ultimately defeating that reform effort. Both Fessler and Wood had strong visions, and their internal normative compasses surely cannot be explained by an economic theory of regulation. However, an economic theory of regulation can help to explain why their visions were not ultimately enacted into law as proposed.

This article is organized as follows: Section I provides an overview of economic theories of regulation. Section II analyzes whether these theories can help to explain some of the major policy initiatives associated with electric restructuring. Section II.A discusses the spread of retail access and its later demise. Section II.B considers the California crisis. Section II.C evaluates the FERC's major rulemakings respecting wholesale market reform. Section II.D examines the continuing tendency of regulation to subsidize high cost

consumers.

This article concludes with a normative comment. If, as this article suggests, public policy will tend toward the consumer interest as information costs decline, then it should also be true that government policy should encourage information collection and dissemination. The payoff from better information should be particularly significant, in the case of electricity restructuring, given the huge sums of money (and associated resource allocations) involved. In particular, better information might help push the industry off its current precipice-teetering between deregulation and traditional It is often said today that regulation protects consumers by regulation. guaranteeing "predictable and equitable" prices, whereas deregulation tends to exploit them. This is a normative debate that is beyond the scope of this article. I would suggest, however, that better information would provide for a more balanced debate. The "failures" of deregulation, e.g., market dysfunction and manipulation, price spikes, and supply shortages, are, by their nature, far more visible than any recognizable failures of regulation itself. This is despite the fact that regulation itself shoulders some of the blame for the ills of deregulation. The absence of time-of-use pricing inhibits demand response, which in turn impairs the competitiveness of wholesale energy markets. There also are significant regulatory barriers to constructing new transmission, including a politicized siting process and rate practices that discourage new investment, which, in turn, impair reliability and interstate trade and increase transmission congestion. Alfred Kahn reminds us that the choice is not between perfect competition and perfect regulation, but rather between an imperfect version of each.¹⁴ The current view, however, seems unduly weighted toward a belief that deregulation is primarily flawed and regulation largely benign. Perhaps better information would somewhat level the playing field.

II. AN ECONOMIC THEORY OF REGULATION

An economic theory of regulation cannot be discussed without first considering its primary alternative: a public interest theory of regulation.¹⁵ A public interest theory starts from the uncontroversial *normative* proposition that regulation *should* occur when necessary to address "market failures" such as natural monopoly and externality (social costs).¹⁶ However, can a public interest

278

^{14. 1} ALFRED E. KAHN, THE ECONOMICS OF REGULATION: PRINCIPLES AND INSTITUTIONS XXIII (MIT Press 1988) [hereinafter KAHN I]; 2 ALFRED E. KAHN, THE ECONOMICS OF REGULATION: PRINCIPLES AND INSTITUTIONS 328–329 (MIT Press 1988).

^{15.} For a more detailed discussion of the various theories of regulation, see JAMES C. BONBRIGHT ET AL., PRINCIPLES OF PUBLIC UTILITY RATES 26–85 (Pub. Utils. Reports, Inc. 2d ed. 1988) [hereinafter BONBRIGHT ET AL.]; VISCUSI ET AL., *supra* note 12.

^{16.} BONBRIGHT ET AL., *supra* note 15, at 33 ("The traditional public interest view of regulation is to protect consumers against high or discriminating prices or unreliable service."); KAHN I, *supra* note 14 ("The role of the government remains essentially negative—setting *maximum* prices, supervising expenditures, specifying *minimum* standards of service, in short, contravening the decisions of private persons only after the fact, only when their performance has been or would otherwise be obviously bad."). This is not to say that there is universal support for regulation of externalities or natural monopolies. *See, e.g.*, RICHARD A. POSNER, NATURAL MONOPOLY AND ITS REGULATION (Cato Inst. 30th ed. 1999); R.H. COASE, THE FIRM THE MARKET AND THE LAW (Univ. Chi. Press 1988); Demsetz, *Why Regulate Utilities*?, 11 J.L. ECON. 55 (1968), *reprinted*

theory of regulation function as a *positive* theory by determining whether regulation *does* occur under those, and *only* those, circumstances? The "normative-positive" theory of regulation posits that it will. As summarized by Viscusi, et al.:

According to the public interest theory, if a market is a natural monopoly, the public will demand industry regulation because the best solution is not achievable in the absence of regulation. Unfettered competition will result in excessive pricing and/or too many firms producing, thus exceeding a socially optimal level. Net welfare gains result by industry regulation, and this potential for welfare gains generates the public's demand for regulation.¹⁷

In order for this to occur in anything other than a textbook scenario, however, one must assume low or zero transaction costs, as Noll describes:

In a limited but complex sense, normative welfare economics constitutes a positive theory of government if the conditions of the Coase Theorem are true: information is perfect and costless, and the political process is free of its counterparts to transaction costs.... [I]mperfect information and transactions costs provide an entering wedge for political theories as to why regulation can be inefficient: capture by interest groups for the purpose of acquiring monopoly rents, or otherwise redistributing wealth to themselves in ways that also create inefficiency.¹⁸

Transaction costs are not, of course, zero. It is for this reason that although the public interest theory is not without some successes,¹⁹ it cannot explain the myriad of regulatory failures documented by economists.²⁰

Recognizing that transaction costs are not zero, George Stigler developed a

18. Roger G. Noll, *Economic Perspectives on the Politics of Regulation, in* 2 HANDBOOK OF INDUSTRIAL ORGANIZATION 1254, 1254–1255 (Richard Schmalensee & Robert D. Willig eds., North-Holland 1988) [hereinafter Noll (1988)] (citations omitted).

19. Peltzman et al. (1989), *supra* note 5, at 17 ("If there is an empirical basis for the [normative analysis as a positive theory's] continuing attraction for economists, it is probably its apparent success as an entry theory") (explaining the onset of regulation of a particular industry). It also has been observed that "the many features of law and public policy designed to maintain a market system are more plausibly explained by reference to a broad social interest in efficiency than by reference to the designs of narrow interest groups." Richard A. Posner, *Theories of Economic Regulation*, 5 BELL J. ECON. & MGMT. Sci. at 335, 350 (1974) [hereinafter Posner (1974)]. See also BONBRIGHT ET AL., *supra* note 15, at 33–41.

20. Posner (1974), *supra* note 19, at 336 ("Were [the public interest] theory of regulation correct, we would find regulation imposed mainly in highly concentrated industries (where the danger of monopoly is greatest) and in industries that generate substantial external costs or benefits. We do not."); Paul L. Joskow & Roger C. Noll, *Regulation in Theory and Practice: An Overview, in* STUDIES IN PUBLIC REGULATION 1 (Garry Fromm ed., MIT Press 1981) [hereinafter Joskow & Noll] ("As a positive theory of regulation, the normative theory of welfare economics is obviously incorrect. Economists have demonstrated that regulatory agencies make numerous decisions that reduce conventional measures of economic welfare."); R.H. COASE, ESSAYS ON ECONOMICS AND ECONOMISTS 61 (Univ. Chi. Press 1994) [hereinafter COASE] ("[The studies] all tend to suggest that the regulation is either ineffective or that, when it has a noticeable impact, on balance the effect is bad, so that consumers obtain a worse product or a higher-priced product or both as a result of the regulation."); KAHN I, *supra* note 14, at xx ("Freed of pervasive regulatory restrictions, and subjected to the greatly accentuated pressures of competition, the deregulated industries generally have greatly improved the efficiency of their operations."). See generally FRIEDRICH A. HAYEK, THE ROAD TO SERFDOM (Univ. Chi. Press 1994) (1944).

in CHICAGO STUDIES IN POLITICAL ECONOMY 267 (George J. Stigler ed., Univ. Chi. Press 1988). See also STEPHEN BREYER, REGULATION AND ITS REFORM 23 (Harvard Univ. Press 1982). Cf. Franklin M. Fisher, The Social Costs of Monopoly and Regulation: Posner Reconsidered, 93 J. POL. ECON. 410 (1985).

^{17.} VISCUSI ET AL., supra note 12, at 325-26.

positive theory of regulation that sought "to explain who will receive the benefits or burdens of regulation, what form regulation will take, and the effects of regulation upon the allocation of resources."²¹ Typically referred to as the "economic theory of regulation" (ET), Stigler's theorem posits that: 1) All individuals will act rationally in their self-interest; 2) Politicians and regulators will act to further their own careers by maximizing political support through the allocation of public goods among affected interest groups; 3) Interest groups will use their resources to compete for these public goods, providing political support through campaign contributions and other vote-getting measures; 4) Producers of goods and services will seek to increase their profits by lobbying for entry barriers, price supports, tariff quotas and the like; and 5) Consumers will defend their interests by opposing this rent-seeking behavior by producers, but more often than not will lose the political competition because consumers are too large and diffuse an interest group to lobby the government effectively. Thus, under Stigler's theory, "[t]he prototypical result . . . is the triumph of the cohesive producer interest over the diffuse consumer interest" in a "political equilibrium . . . in which cohesive minorities tax diffuse majorities."²² This was the basis for Stigler's conclusion that "as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit."23

A few years later, Stigler's colleague, Sam Peltzman, formalized Stigler's theory.²⁴ Peltzman's model retained the assumption that the political effectiveness of an interest group is a function of its net per capita gains from lobbying, but cautioned that this did not guarantee a *single* winning group.²⁵ Rather, Peltzman concluded that "regulators will allocate benefits across consumer and producer groups so that total political utility is maximized."²⁶ Although Peltzman's model did not allow one to predict "whether the producers, the consumers, or neither group typically gets the lion's share of the rents[,]"²⁷ it did contain two important hypotheses. First, regulation would act to "offset the effect of market forces on the division of rents between producers and

- 23. Stigler, supra note 1, at 3.
- 24. Peltzman (1976), supra note 2, at 235.

^{21.} Stigler, *supra* note 1. Stigler's theorem was influenced both by his prior empirical work on the effects of regulation and the earlier theoretical work of public choice economists. *See* George J. Stigler & Claire Friedland, *What Can Regulators Regulate? The Case of Electricity*, 5 J.L. & ECON. 3 (1962). *See* ANTHONY DOWNS, AN ECONOMIC THEORY OF DEMOCRACY (Harper & Row 1957) [hereinafter DOWNS]; MANCUR OLSON, THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS (Harvard Univ. Press 2d prtg. 1971) (1965); JAMES M. BUCHANAN & GORDON TULLOCK, THE CALCULUS OF CONSENT: LOGICAL FOUNDATIONS OF CONSTITUTIONAL DEMOCRACY (Univ. Mich. 2d prtg. 1967) (1962). As relevant to Stigler's theorem, Downs had concluded that producers would be favored over consumers due to high information costs, and Olson had concluded that large interest groups would be far less effective than small interest groups in furthering the objectives of their members. For a general discussion of Stigler's contribution to the study of regulation, see Sam Peltzman, *George Stigler's Contribution to the Economic Analysis of Regulation*, 101 J. POL. ECON. 818 (1993) [hereinafter Peltzman (1993)].

^{22.} Peltzman (1993), supra note 21, at 823.

^{25. &}quot;[N]o single economic interest captures a regulatory body[.]" Peltzman et al. (1989), *supra* note 5, at 9.

^{26.} Id. at 10.

^{27.} Peltzman et al. (1989), supra note 5, at 10.

consumers"²⁸ such that, for example, "[r]egulation will tend to be more heavily weighted toward 'producer protection' in depressions and toward 'consumer protection' in expansions."²⁹ Second, regulation would tend to cross subsidize high cost consumers³⁰ because of "the lack of any general connection between the cost differences and the political importance of [high and low cost consumers]."³¹ Peltzman's finding was consistent with Richard Posner's earlier conclusions.³²

Peltzman later applied this economic theory of regulation to the deregulation of the railroad, trucking, airline, financial services, and longdistance telecommunications industries. He acknowledged that "[n]ot one economist in a hundred practicing in the early 1970s predicted the sweeping changes that were soon to happen[,]" but nonetheless concluded that many, albeit not all, of the cases of deregulation were broadly consistent with an economic theory of regulation.³³ In most of these industries the rents gained by producers through regulation dissipated due to reductions in demand, changes in technology, or new entry.³⁴ Consequently, the marginal cost of expending resources in support of continued regulation exceeded the benefits of doing so, thereby eliminating the incentive for producers to support regulation and reducing the rents available for regulators to distribute across groups.³⁵ For example, continued regulation of the railroad industry was undercut by competition from other carriers (particularly trucking), and as a result "[t]he organized producer interest ultimately favored and got deregulation."³⁶ Rents also had dissipated in the airline industry, albeit due to quality competition or service rather than new entry, so that costs were increased without increasing marginal rates.³⁷ Although, some carriers, nonetheless continued to support regulation, the largest airline, United, supported deregulation.³⁸ Peltzman acknowledged. however. that deregulation of the trucking and telecommunications industries did not fit neatly into an economic theory of regulation.39

- 29. Peltzman (1976), supra note 2, at 227.
- 30. *Id.*

- 32. Posner (1971), supra note 2, at 22-50.
- 33. Peltzman et al. (1989), supra note 5, at 3.

34. See also Theodore E. Keeler, *Theories of Regulation and the Deregulation Movement, in* 44 PUBLIC CHOICE: CARNEGIE PAPERS ON POLITICAL ECONOMY 103 (A.H. Meltzer et al. eds., Martinus Nijhoff Publishers 1984) (reaching similar conclusions but positing a different theory of regulation).

- 35. Peltzman et al. (1989), supra note 5, at 20.
- 36. Id. at 24.
- 37. Peltzman et al. (1989), supra note 5, at 28.
- 38. Id.

39. Peltzman et al. (1989), *supra* note 5, at 28. With trucking regulation, the available data suggested that the industry was continuing to earn above competitive rates for service, yet the industry was deregulated. Peltzman thus remarked that trucking was "an industry in which substantial and sustainable rents received the fullest measure of organized support from the beneficiaries[;] [t]here is simply no way I know of to square the wholesale elimination of these rents by political action with any current version of the [Economic Theory]." Peltzman et al. (1989), *supra* note 5, at 26. Deregulation of long-distance telecommunications was a slightly

^{28.} Id. at 10.

^{31.} Peltzman et al. (1989), supra note 5, at 11.

Numerous economists also contributed to an economic theory of regulation. Gary Becker provided a more uplifting hypothesis, positing that regulation would tend toward efficient outcomes. This hypothesis rested on the premise that regulation does not transfer wealth efficiently, i.e., for every dollar taken from consumers to subsidize producers, producers will receive less than a dollar, resulting in dead weight loss.⁴⁰ The loss increases with the level of subsidy being sought and, because of this, consumers' incentive to oppose inefficient regulation increases as the subsidy increases. This effect did not, as Becker acknowledged, eliminate inefficient regulation, but nonetheless imposed an important counterweight to its excesses.

Richard Posner's work focused on a different phenomenon—the tendency of regulation to transfer wealth from the low-cost to the high-cost consumer. Dubbing this "taxation by regulation," he concluded that "one of the functions of regulation is to perform distributive and allocative chores usually associated with the taxing or financial branch of government[,]"⁴¹ resulting in "the deliberate and continued provision of many services at lower rates and in larger quantities than would be offered in an unregulated competitive market"

Economists readily acknowledged the limits of their theories, however. Posner noted the limitation of economic theories of regulation,⁴³ as did Peltzman in examining the cases of deregulation.⁴⁴ Joskow and Noll also concluded that "the [economic] theory of regulation serves as a convenient way of organizing historical material, but not one that is particularly rich in predictive value."⁴⁵ Not surprisingly, political scientists were even more skeptical of economic theories of regulation.⁴⁶

One distinct limitation of an economic theory of regulation is that, as Peltzman acknowledged, it does not allow one to predict, a priori, whether "the producers, the consumers, or neither group typically gets the lion's share of the

46. POLITICS OF REGULATION, *supra* note 3; DERTHICK & QUIRK, *supra* note 4, at 27. See also WILSON, *supra* note 3 (Wilson's views reflect the tension between the political and economic social sciences). Economists emphasize the importance on generating positive theories that can be tested empirically. See, e.g., MILTON FRIEDMAN, ESSAYS IN POSITIVE ECONOMICS (Univ. Chi. Press 1953); R.H. COASE, THE FIRM THE MARKET AND THE LAW 28–29 (Univ. Chi. Press 1988). Political scientists are generally skeptical that political behavior can be modeled through positive theories assuming rational, self-interested action.

282

different case, with Peltzman concluding that, although new entry was tending to dissipate regulatory rents, it was difficult to attribute deregulation to the foresight of regulators that the available pool of public benefits was shrinking. *Id.* at 31.

^{40.} Gary S. Becker, A Theory of Competition Among Pressure Groups for Political Influence, 98 Q.J. ECON. 371 (1983) [hereinafter Becker (1983)]; Gary S. Becker, Public Policies, Pressure Groups, and Dead Weight Costs, 28 J. PUB. ECON. 329 (1985).

^{41.} Posner (1971), supra note 2, at 23.

^{42.} Id. at 22.

^{43.} Richard Posner, *Theories of Economic Regulation*, 5 BELL J. ECON. & MGMT. SCI. 335, 348–349 (1974) (concluding that an economic theory of regulation is "still so spongy that virtually any observations can be reconciled with it[]" and that "[i]t is not a coherent theory yielding unambiguous and therefore testable hypotheses."). For a somewhat harsh critique of economic theories of public choice generally, see DONALD P. GREEN & IAN SHAPIRO, PATHOLOGIES OF RATIONAL CHOICE THEORY: A CRITIQUE OF APPLICATIONS IN POLITICAL SCIENCE (Yale Univ. Press 1994).

^{44.} Peltzman et al. (1989), supra note 5, at 3.

^{45.} Joskow & Noll, supra note 20, at 39-40.

rents."⁴⁷ This is due, in part, to the variability of transaction costs across different industries and the difficulty of estimating those costs for purposes of testing a positive theory of regulation.

A simple example illustrates this problem. Assume there are three producers operating in a single state. The producers employ 100,000 workers, have 5,000 in-state shareholders, and sell a product used by three million consumers. In this example, the three producers will form a more effective political organization than the diffuse group of three million consumers, but the consumers will have a distinct numerical voting advantage (three million consumers compared to 105,000 workers and shareholders). Consequently, the producers in this example must be efficient in their political influence by translating money and other support into votes in order to overcome their substantial disadvantage in terms of voting strength.⁴⁸

The presence of information costs gives these three producers an advantage over the three million consumers. The producers will know what form of regulation increases their profits, but the consumers often will not know they are being harmed by pro-producer regulation.⁴⁹ Consumers may even be misled into thinking that pro-producer regulation actually benefits them through political advertising. It was for this reason that Becker discounted the role of voting in his interest group model.⁵⁰

An even more fundamental limitation on consumer voting strength is that inefficient regulation often has such a small effect on consumers that it does not

49. Peltzman (1976), *supra* note 2, at 213 ("In the case of a particular issue, the voter must spend resources to inform himself about its implications for his wealth and which politician is likely to stand on which side of the issue. That information cost will have to offset prospective gains, and a voter with a small per capita stake will not, therefore, incur it."). Downs offered a similar conclusion fifteen years before, which he summarized in the following example: "[L]egislators are notorious for writing tariff laws which favor a few producers in each field at the expense of thousands of consumers.... [M]ost consumers cannot even afford to find out whether tariffs are raising the price they pay for any given product. Yet without such knowledge they cannot have policy preferences for the government to pay attention to. Under these conditions, government is bound to be more attentive to producers than consumers when it creates policy." DOWNS, *supra* note 21, at 255.

50. Becker (1983), *supra* note 40, at 392. The point has merit, although how much public opinion can be "manipulated" is debatable. *See* BENJAMIN I. PAGE & ROBERT Y. SHAPIRO, THE RATIONAL PUBLIC: FIFTY YEARS OF TRENDS IN AMERICANS' POLICY PREFERENCES (Univ. Chi. Press 1992) [hereinafter PAGE & SHAPIRO] (acknowledging that the public is sometimes misled, but arguing that public policy generally tracks public opinion); LAWRENCE R. JACOBS & ROBERT Y. SHAPIRO, POLITICIANS DON'T PANDER: POLITICAL MANIPULATION AND THE LOSS OF DEMOCRATIC RESPONSIVENESS (Univ. Chi. Press 2000) [hereinafter JACOBS & SHAPIRO] (providing case studies on attempts to manipulate public opinion); JOHN R. ZALLER, THE NATURE AND ORIGINS OF MASS OPINION (Cambridge Univ. Press 1992) [hereinafter ZALLER] (indicating public opinion is influencing the positions taken by "elites").

^{47.} Peltzman et al. (1989), supra note 5, at 10.

^{48.} For a discussion of the effect of campaign contributions on political influence and behavior, see DENNIS C. MUELLER, PUBLIC CHOICE III 481–96 (Cambridge Univ. Press 2003) (summarizing empirical and theoretical work). "While competition for votes in a Downsian sense brings the candidates' platforms closer to the median, competition for money moves them away from it. Competition for votes leads to competition for money, and the latter pulls the two platforms apart." *Id.* at 479. *See also* Jonathan Nagler & Jan Leighley, *Presidential Campaign Expenditures: Evidence on Allocations and Effects*, 73 PUB. CHOICE 319 (1992) (noting campaign contributions not only influence voting behavior, and hence, the outcome of elections, but also the relative positions of the two dominant political parties).

influence their voting behavior. Consumers are likely to be more concerned with larger issues in the voting booth, such as national defense and macroeconomic policy. Peltzman noted this truism and suggested it may help explain why public policy is broadly responsive to the public, but not necessarily in the regulation of particular industries.⁵¹

If Peltzman is correct, it should follow that the organizational advantages of producers will vary not only with group size and structure, e.g., free-rider problems, but also on the nature of the product they provide. The greater the number of those consuming the product, and the more important it is to them, the more likely that public policy will tend toward the consumer interest. For example, if an industry provides an essential service that affects the entire population, such as telephone and electric service, the organizational advantages of producers should be at their lowest because the consumer voting pool is the greatest and the product's importance to their daily lives is also at its highest. The caveat, of course, is whether those consumers have the necessary information to understand that their essential product costs more than it should (or is supplied in less than optimal quantities) due to producer subsidies.⁵²

Although consumers are unlikely to procure that information on their own, political entrepreneurs often have the incentive to do it for them, as Noll describes:

[P]olitical entrepreneurs can play the role of market perfectors, identifying failures and reporting them to those harmed.... [I]nformation pertinent to identifying market failures is most cheaply acquired and disseminated by government. Government alone can compel private parties to provide it, and relevant information is a byproduct of other government activities. Moreover, government officials, because of their importance and recognizability, can readily access the public through the media to announce the information they acquire.⁵³

Wilson, Bonbright, and others have offered similar observations.⁵⁴

52. This, no doubt, is one reason why farm subsidies have been historically successful in the United States and other countries. Farm subsidies affect the food consumed by every voter, yet it is unlikely that most voters have an appreciation for the effect of those subsidies on the price of broccoli, a gallon of milk, etc. It also is likely true that voters are more tolerant of subsidies to farmers than other industry groups, such as oil companies.

53. Noll (1988), *supra* note 18, at 1259–60. Posner makes a similar point, asserting that, if one assumes political entrepreneurship, the cost of organization becomes irrelevant; importantly, however, he indicates that this factor can favor producers. "The costs of cooperative action are irrelevant under [a] system [that is entrepreneurial]: the government can use its taxing or other powers of coercion to enable the industry to overcome any free-rider problem it might have, in order that the industry can raise the maximum purchase price for the legislation." Posner (1974), *supra* note 19, at 346.

54. WILSON, *supra* note 3, at 370 ("[t]he entrepreneur serves as the vicarious representative of groups not directly part of the legislative process."); BONBRIGHT ET AL., *supra* note 15, at 65 ("[t]he championing of consumer interests by political entrepreneurs, often seeking election (or reelection) to regulatory or higher political office, is a countervailing force to the regulatory capture."); AVINASH K. DIXIT, THE MAKING OF ECONOMIC POLICY: A TRANSACTION-COST POLITICS PERSPECTIVE 42–43 (MIT Press 1996) ("Arnold argues that the political payoff to politicians from publicizing hidden but potentially large economic costs, and from creating issue positions that solve the free-rider problem for the bearers of these costs, is real and often

^{51.} SAM PELTZMAN, POLITICAL PARTICIPATION AND GOVERNMENT REGULATION vii-viii (Univ. Chi. Press 1998) [hereinafter PELTZMAN (1998)]. In their study of public opinion, Page and Shapiro conclude that "most Americans are, at best, fuzzy about the details of government structure and policy[,]" but that their collective policy preferences are nonetheless "*real, knowable, differentiated, patterned, and coherent.*" PAGE & SHAPIRO, *supra* note 50, at 13, 383.

2004] ECONOMIC THEORIES OF REGULATION

Politicians therefore need not be viewed as primarily reactive, awarding public goods only to those who are effectively organized or those having acquired sufficient non-free information on their own account.⁵⁵ Rather, politicians should have an incentive to pursue regulatory reform as a means of obtaining votes even when consumers have not organized effectively and are not aware of the need for reform.⁵⁶ However, for there to be such a political incentive, the benefits of reform must be both material and transparent to the public. The latter is particularly important because voters will not reward a politician for a public policy benefit that is unknown.⁵⁷

The difficulty of quantifying organization and information costs—including the cost (benefit) that political entrepreneurs incur (receive) in formulating and communicating particular pro-consumer policies to the public—undermines the testability of positive theories of regulation.⁵⁸ This does not mean that such theories cannot, in a broader sense, explain or predict the general course of regulatory policy or its reform. As discussed in section III, there is little doubt that, when information costs were at their lowest regarding the failures of regulation or deregulation, regulatory policy tended toward the consumer interest, rather than well organized producer groups such as utilities and independent producers.

56. This assumption—that politicians will pursue pro-consumer reform only when it increases their potential votes—accepts the premise of positive economics that humans will act rationally in their self-interest. Economists generally acknowledge, however, that politicians have altruistic motivations as well. DOWNS, *supra* note 21, at 27 ("In reality, men are not always selfish, even in politics. They frequently do what appears to be individually irrational because they believe it is socially rational—i.e., it benefits others even though it harms them personally."); Gary S. Becker, *Nobel Lecture: The Economic Way of Looking at Behavior*, 101 J. POL. ECON. 385, 385 (June 1993) ("[T]he economic approach I refer to does not assume that individuals are motivated solely by selfishness or material gain... I have tried to pry economists away from narrow assumptions about self-interest. Behavior is driven by a much richer set of values and preferences."); *see also* ADAM SMITH, THE THEORY OF MORAL SENTIMENTS 9 (D. D. Raphael & A. L. Macfie eds., Clarendon Press 1976) (1759). For a comprehensive discussion of the competing visions of human motivation, *see* THOMAS SOWELL, A CONFLICT OF VISIONS: IDEOLOGICAL ORIGINS OF POLITICAL STRUGGLES (Basic Books 2002).

57. ZALLER, *supra* note 50; JACOBS & SHAPIRO, *supra* note 50, at xv. *See also* DORIS A. GRABER, PROCESSING THE NEWS: HOW PEOPLE TAME THE INFORMATION TIDE 105 (Longman 1984).

58. As Peltzman has observed, "[a]nything that, for example, made it cheaper to organize or inform the broad mass of consumers about the adverse consequences of regulation in a structurally competitive industry would increase the political payoff to deregulation. Here I ignore these political factors, partly because economists have so far had limited success in pinning them down \ldots ." Peltzman et al. (1989), *supra* note 5, at 20.

effective." (citation omitted)).

^{55.} See, e.g., PELTZMAN (1998), supra note 51, at x ("Another reservation I had about the notion that regulators would be 'captured' by the regulated was the passive role it assigned to regulators and the rest of us. If the regulator were indeed the rational maximizer Stigler (and I) made him out to be, would he not seek some competition for his services rather than accept unquestioningly an inevitable triumph of the regulated industry?").

III. ECONOMIC THEORIES OF REGULATION APPLIED TO ELECTRICITY RESTRUCTURING

A. Retail Restructuring

From 1996 to 2000, twenty-four states adopted legislation providing retail customers access to alternative suppliers of generation.⁵⁹ This was accomplished by eliminating the utility's exclusive franchise supplying energy at retail, lowering other regulatory barriers to entry, and partially deregulating prices.⁶⁰ This was no small event, given the speed of the reform movement and the fact that the electricity industry exceeds in size and economic importance any other previously deregulated industry. This wave of reform ended as quickly as it started, however. No state has adopted retail access since 2000, and eight states have delayed, suspended, or repealed their retail access programs.⁶¹ This section traces the rise and fall of retail access from its 1994 beginning, when California started the movement, and concludes with some thoughts about the future.

1. The Birth of Retail Access: 1994–1997

In April 1994, California started the retail access movement by issuing a draft plan allowing all retail customers to choose their generation supplier.⁶² By 1997, ten states, including some of the nation's largest, (i.e. New York, Pennsylvania, Illinois, and Massachusetts), had followed California's lead by adopting retail access programs.⁶³

This initial wave of reform was consistent, in many respects, with a public interest theory of regulation because the generation sector had become structurally competitive.⁶⁴ The Energy Policy Act of 1992 reduced regulatory

60. The term "deregulation" is somewhat of a misnomer. Unlike some industries (e.g., natural gas), there is no federal legislation that "deregulated" the price of electricity; rather, the FERC sought to deregulate wholesale prices on a case-by-case basis (for certain suppliers and regions one at a time). At the state level, retail access legislation typically "deregulates" energy prices—i.e., prices are no longer subject to cost-of-service regulation and new entrants can charge whatever they want—but with a critical limitation. The limitation ordinarily is that the local distribution company retains an obligation to serve at capped rates for a certain time period (and, even after that period, can charge only those rates approved by regulators for default customers). Consequently, although the energy rates are no longer "regulated" on a cost of service basis, that does not mean they are generally free to respond to market forces without government intervention.

61. CONSUMER ENERGY COUNCIL OF AM., supra note 59.

62. California Blue Book, supra note 8.

63. AM. PUB. POWER ASS'N., START DATES FOR RETAIL CHOICE, available at http://www.appanet.org/aboutappa/index.cfm?ItemNumber=9567 (updated June 7, 2004).

64. It should be noted, however, that many had urged regulators to focus on the productive efficiencies available from wholesale competition, rather than smaller gains achievable through competition by retail marketers. See, e.g., Karl A. McDermott, Is There a Rational Path to Implementing Competition?, 9 ELEC. J. at 60 (Jan./Feb. 1996); Larry E. Ruff, Stop Wheeling and Start Dealing: Resolving the Transmission Dilemma, 7 ELEC. J. at 24 (June 1994). In the aftermath of the California crisis, this advice continues with even greater force. SALLY HUNT, MAKING COMPETITION WORK IN ELECTRICITY 3 (John Wiley & Sons, Inc. 2002) [hereinafter HUNT] ("Competition in the retail markets will not produce low prices if the production markets

^{59.} CONSUMER ENERGY COUNCIL OF AM., POSITIONING THE CONSUMER FOR THE FUTURE: A ROADMAP ELECTRIC POWER 2003), available то AN OPTIMAL SYSTEM (Apr. at http://www.cecarf.org/Publications/MiscPub/RestExecSummary.pdf [hereinafter CONSUMER ENERGY COUNCIL OF AM.].

barriers to entry, and in 1996, the FERC imposed an open access mandate on transmission providers.⁶⁵ With sharply reduced barriers to entry, there was a compelling normative case for choosing competition over regulation of the generation sector of the industry.⁶⁶ In addition, the recent regulatory track record of the generation sector had been poor.⁶⁷ The high cost of QFs and nuclear plants had driven retail rates to 10 cents/kilowatt hour (kWh) or more in some states.⁶⁸ The enormous cost burden from QFs was due, in part, to government use of non-market methods for price setting.⁶⁹ Nuclear cost overruns were not a per se regulatory failure, but regulation, nonetheless, was blamed for failing to supply the proper incentives for utilities to cancel questionable investments mid-stream.⁷⁰

In particular, public interest theories could not explain two things. First, retail access left in place many inefficient rate practices that would inhibit a transition to deregulation, particularly the absence of time-of-use (hourly) rates

66. Pennsylvania Public Utility Commission, Report and Recommendation to the Governor and General Assembly on Electric Competition i (July 1996) [hereinafter PaPUC Report] ("It is evident that electric power generation is not a natural monopoly and thus should not be regulated as such."); 66 PA. CONS. STAT. ANN. § 2802(5) (West 2004) ("Competitive market forces are more effective than economic regulation in controlling the cost of generating electricity."); *Re Competitive Opportunities Regarding Electric Service*, 168 P.U.R. 4th 515 (NYPUC May 20, 1996) (indicating market forces overall are expected to produce, over time, rates that will be lower than they would be under a regulated environment). The prevailing view among economists is that regulation is not an efficient substitute for competition. *See* COASE, *supra* note 20, at 61 (the studies "all tend to suggest that the regulation is either ineffective or that, when it has a noticeable impact, on balance the effect is bad, so that consumers obtain a worse product or a higher-priced product or both as a result of the regulation."); KAHN I, *supra* note 14, at xx ("Freed of pervasive regulatory restrictions, and subjected to the greatly accentuated pressures of competition, the deregulated industries generally have greatly improved the efficiency of their operations.").

67. This failure was, however, a recent phenomenon. Regulation had been largely successful (or benign, depending on one's perspective), as evidenced by the "technological progress and the progressive achievement of economies of scale" in generation. See KAHN I, supra note 14, at xvii. Indeed, the level of productivity in the electricity sector under regulation had exceeded that of many major industries. Paul L. Joskow, Deregulation and Regulatory Reform in the U.S. Electric Power Sector, in DEREGULATION OF NETWORK INDUSTRIES: WHAT'S NEXT? 113, 119 (Sam Peltzman & Clifford Winston eds., AEI-Brookings Joint Center for Regulatory Studies 2000) [hereinafter Joskow (2000)].

68. See, e.g., HUNT, supra note 64, at 260; Karl A. McDermott & Carl R. Peterson, Is There a Rational Path to Salvaging Competition?, 15 ELEC. J. at 15 (Mar. 2002) [hereinafter McDermott & Peterson] ("The root causes of [high retail rates] were in part the result of high-cost, nuclear generation and long-term [PURPA] contracts.").

69. To be fair, however, some of the mistakes in pricing QF power were related to projections of demand and oil prices, which were mistakes that the market itself could have made, albeit with different effects (in a competitive market, the cost of the mistakes would not have been borne by consumers). McDermott & Peterson, *supra* note 68, at 18. QF prices in New York and elsewhere assumed oil at \$100/barrel. HUNT, *supra* note 64, at 260.

70. See PaPUC Report, supra note 66, at 20 ("There can be no doubt that the existing ratemaking system itself has significant contributed to stranded utility investments [in nuclear power]."). Cf. California Blue Book (the "regulatory structure ... offers the utility at best weak incentives to operate and invest efficiently[.]").

are not competitive.").

^{65.} Energy Policy Act of 1992, Pub. L. No. 102-486, 106 Stat. 2776 (1992); Order No. 888, *supra* note 9. The FERC allowed market-based pricing for new generation in 1994 "in light of industry and statutory changes which allow ease of market entry[.]" *Kan. City Power & Light Co.*, 67 F.E.R.C. ¶ 61,183, 61,557 (1994).

to facilitate demand response to price increases.⁷¹ Second, a public interest theory cannot explain why one-half of the nation adopted retail access legislation, whereas the other did not. A public interest theory would suggest that all states should have deregulated generation prices if the normative case for regulation of generation had, as the actions of twenty-four states suggested, disappeared.⁷²

Does an economic theory of regulation fare any better? Under Peltzman's theory, deregulation is most likely to occur when producer rents created by regulation dissipate to a level that weakens or eliminates producer incentives to support continued regulation.⁷³ This can occur for a variety of reasons, including reductions in demand or changes in technology that permit greater competitive entry. Were these phenomena present with retail restructuring? To some extent, the answer is "yes." New entry by independent power producers placed downward pressure on future rents in the regulated generation sector.⁷⁴ Although these independent producers did not "compete" with utilities to serve their customers (with the exception of competition for "behind-the-fence" industrial loads), independent generators limited the utilities' share of the market for constructing new generation.⁷⁵ In addition, utilities' experience with severe disallowances of nuclear plant investment introduced asymmetric risks for new investments in generation, causing many utilities to declare the "regulatory compact" broken.⁷⁶

But new entry and its dissipation of future rents did not make retail access a perfect fit for an economic theory of regulation. Despite the effect of new entry on future earnings, utilities were still earning above-market rents on their existing generation resources. Regulated retail generation rates exceeded competitive levels during the 1990s,⁷⁷ so much so that the threat of retail access to utilities' sunk investments were estimated at between \$100–200 billion nationwide.⁷⁸ For example, the day California began the wave of deregulation, the three California utilities alone lost \$2.3 billion in market value.⁷⁹ This enormous stranded-cost exposure caused most utilities to resist or outright

78. Joskow (2000), supra note 67, at 138.

79. John L. Jurewitz, *California's Electricity Debacle: A Guided Tour*, 15 ELEC. J. at 10, 13 (May 2002) [hereinafter Jurewitz].

^{71.} The range of inefficient practices retained is described in more detail in Section II.D.

^{72.} Matthew White et al., Power Struggles: Explaining Deregulatory Reforms in Electricity Markets, *in* 1996 BROOKINGS PAPERS ON ECONOMIC ACTIVITY: MICROECONOMICS 201, 238 (1996) [hereinafter White et al.].

^{73.} Peltzman et al. (1989), supra note 5, at 20.

^{74.} Joskow (2000), supra note 67, at 121.

^{75.} Utilities do not earn a profit on generation purchases, but do earn a profit (regulated return) on generation that they construct. See Harvey Averch & Leland L. Johnson, The Behavior of the Firm Under Regulatory Constraint, 52 AM. ECON. REV. 1052 (1962) (discussing the incentives to invest in capital under rate of return regulation).

^{76.} The regulatory compact—utilities investing large sums to construct new generation to serve load with a reasonable assurance of cost recovery—was deemed by the industry to be "broken" by the nuclear plant disallowances of the 1980s. KAHN I, *supra* note 14, at xxvi–xxviii.

^{77.} White et al., supra note 72, at 228; Joskow & Noll, supra note 20, at 136.

it.⁸¹

What then explains the initial movement toward retail access? Matthew White offered a theory in 1996 explaining why some states were pursuing retail access and others were not pursuing retail access. He identified the relative price gap between retail and wholesale prices in various states as the principal factor. He posited that, as a general matter, regulators can be expected to adjust rates to competitive levels through continued regulation,⁸² but in states such as California, New York, and New England, this was not possible because no traditional regulatory response, e.g., prudence disallowance, could lower rates to competitive levels.⁸³ He concluded that in states with a large gap between regulated and market rates deregulation was the only possible response. Furthermore, this response was rational from the politicians' perspective because it limited the risk that they would be criticized for failed future resource acquisition decisions, as they had been in the 1980s.⁸⁴ Consistent with this thesis, White also concluded that, in states where the gap between retail and competitive wholesale rates is small, regulators would not adopt deregulation. but rather would make modest adjustments in regulation thus lowering rates to competitive levels.⁸⁵

White's hypothesis has proven correct in significant respects. There is no question that the relative gap between retail and competitive rates helps to explain the initial wave of retail restructuring, but, as described below, the data do not support the hypothesis that retail access will occur only where there are large price gaps. Recital access initially occurred in the states with the highest retail rates—California, New York, Pennsylvania,⁸⁶ Illinois, and New England. The average residential rate in those states was typically in excess of 9

- 84. White et al., supra note 72, at 245.
- 85. Id at 230

86. Pennsylvania was one of the first large states to adopt retail access, even though its average retail rate was 7.86 cents/kWh. This average rate, however, masked the fact that retail rates in Pittsburgh and Philadelphia were far higher (and comparable to those in California and New York) due to the large nuclear investments of the utilities serving those cities, namely PECO Energy and Duquesne Light. Other utilities in Pennsylvania, particularly Allegheny Energy, had far lower rates because they had no nuclear investment, thereby bringing the statewide average to more modest levels.

^{80.} White et al., supra note 72, at 258.

An alternative economic explanation for deregulation is that of Becker. Under Becker's thesis, 81. deregulation is more likely to occur as deadweight costs rise, particularly if those deadweight costs were created by regulation itself. See Becker (1983), supra note 40. See also Peltzman et al. (1989), supra note 5, at 20-21. There are certain parallels between Becker's hypothesis and electricity deregulation. An over-market QF contract is, in some respects, a deadweight cost-i.e., it neither benefits consumers nor utilities. It also is true that nuclear plant cost disallowances were a significant deadweight cost. Nuclear plant write-offs were substantial, totaling \$22 billion between 1985-92 and accounting for 17% of total utility plant investment. Bernard S. Black & Richard J. Pierce, Jr., The Choice Between Markets and Central Planning in Regulating the U.S. Electricity Industry, 93 COLUM. L. REV. 1339, 1346 (1993). In addition, certain states burdened electric rates with programs to benefit environmental and other constituencies, creating further deadweight costs.

^{82.} White et al., supra note 72, at 241.

^{83.} Id. at 231.

cents/kWh.⁸⁷ Assuming transmission and distribution charges of approximately 2–3 cents/kWh,⁸⁸ this left an average regulated generation rate of 6 cents/kWh, significantly above the cost of new entry⁸⁹ and even further above thenprevailing market prices. In the mid-1990s, power on the wholesale market often traded for between 2.0–2.5 cents/kWh, reflecting the effects of excess capacity and low natural gas prices.⁹⁰

If White's predictions were correct, was his thesis sound as well? As a general matter, the answer is yes, although the assumption that regulators will, as a general matter, seek to lower regulated rates to competitive levels seems a bit optimistic. Public officials may well seek to lower rates to competitive levels, but are more likely to do so when information costs are sufficiently low and the resulting political gains sufficiently high to overcome the organizational strength of producers (utilities).⁹¹ Moreover, the regulatory tools for making small adjustments in order to reduce rates to competitive levels are often too blunt to readily serve that purpose. In most instances, utility rates remain untouched unless prices are increasing and utilities seek rate relief; consequently, as long-run marginal costs decline, regulation will not necessarily respond to align rates with competitive levels.⁹²

The close correlation between the relative size of the price gap and retail access can also be explained through a close examination of transaction costs under the Stigler/Peltzman economic theory of regulation. The large price gap in

88. Transmission and distribution (T&D) rates vary across the nation as well as within states, due to differences in population density, the need for underground lines in urban areas, the vintage of facilities, etc. The 2–3 cents/kWh figure is a representative T&D rate, but not a statistical average. An unscientific sampling of public data from various regions provides T&D rates that range from 2–4 cents/kWh for residential customers: Commonwealth Edison (2.285 cents/kWh); Massachusetts Electric (3.06 cents/kWh); Baltimore Gas & Electric (2.72 cents/kWh); and Pacific Gas and Electric (4.34 cents/kWh). The data on industrial customers is more difficult to collect, given the need to estimate average consumption to convert demand charges into a cents/kWh figure. Average T&D rates for *all* customers are available in some published orders. *See, e.g., Re Duquesne Light Co.*, 185 P.U.R. 4th 389 (PaPUC May 21, 1998) (2.3 cents/kWh); *PECO Energy Co.*, 99 Pa.P.U.C. 402 (PaPUC May 28, 1998) (2.98 cents/kWh).

89. Joskow estimated the cost of a new combined cycle gas plant at 3.5 cents/kWh in 1996. White et al., *supra* note 72, at 262. This figure is sensitive to changes in construction costs due to improvements in technology and to the price of natural gas. Since 1996, the installed cost of a combined cycle plant has continued to decline, but the price of natural gas has risen significantly. OFFICE OF MKT. OVERSIGHT & INVESTIGATIONS, FED. ENERGY REGULATION COMM'N, 2004/04 WINTER ENERGY MARKET ASSESSMENT (Nov. 13, 2003).

90. White et al., *supra* note 72, at 262. See also William R. Hughes & Andrew Parece, *The Economics of Price Spikes in Deregulated Power Markets*, 15 ELEC. J. at 31, 35 (July 2002) (providing 1996–99 average wholesale market price data for California, New York, New England, and Pennsylvania-Jersey-Maryland (PJM)) [hereinafter Hughes & Parece (2002)].

91. See discussion, supra Part II.

92. White also assumed that regulators would adopt deregulation to avoid the future political risks of regulating resource acquisition decisions. This is perhaps true to some degree, but it would seem that the predominant political cost-benefit calculus is that of the short-run, not the long run. The election cycle is short, as are the appointment terms of regulatory commissioners. As George Shultz has observed, ["i]n the politician's world the horizon is immediate." GEORGE P. SHULTZ & KENNETH W. DAM, ECONOMIC POLICY BEYOND THE HEADLINES 194 (Univ. Chi. Press 2d ed. 1998).

^{87.} Joskow (2000), *supra* note 67, at 140; 2 DEP'T OF ENERGY, ENERGY INFO. ADMIN. ELECTRIC POWER ANNUAL 1999 22 (Oct. 2000), *available at* http://www.eia.doe.gov/cneaf/electricity/epav2/epav2.pdf.

California and other states was readily apparent from published regulated and market prices; thus information costs on the failures of regulation (and the potential benefits of deregulation) were quite low. These low information costs enabled cohesive customer groups, particularly large industrial customers, to lobby effectively for change, and provided political entrepreneurs the opportunity to seize upon retail access as a vote-getting reform effort. Ĭf Posner's subsidies were "taxation by regulation," retail access became "tax cut by deregulation."93 Politicians certainly not shy about taking advantage of the situation. California stated "we are single-minded in [our] objective - to lower the cost of electric service to California's residential and business consumers³⁹⁴ It promised "California's residential consumers can look forward to relief from some of the highest electricity prices in the country."95 New York declared that "competition should result in lower electric prices in New York State overall than currently."96 Massachusetts and Pennsylvania also trumpeted the potential consumer savings due to the price gap.⁹⁷ If promises of rate reductions were not enough, many states adopted guaranteed rate reductions. Most of these rate cuts targeted residential and small commercial customers,⁹⁸ reinforcing the notion that politicians were motivated, at least in part, by political appeals to the mass consumer (voter) interest.⁹⁹

Because an economic theory of regulation focuses on the strength of organized groups, one obvious question is: whether retail access is best

94. California Blue Book, supra note 8, at 1; see also Notice of Proposed Rulemaking, Re Proposed Policies Governing Restructuring California's Electric Services Industry and Reforming Regulation, 166 P.U.R. 4th 1 (CPUC Jan. 10, 1996).

95. California Blue Book, supra note 8. Assembly Bill 1890 also declared that the "anticipated result [of restructuring would be]... a cumulative rate reduction for residential and small commercial customers of no less than 20 percent by April 1, 2002." Assemb. B 1890 § 1(b)(4), 1995–1996 Leg., 1st Exec. Sess. (Cal. 1996).

96. Re Competitive Opportunities Regarding Electric Service, 168 P.U.R 4th 515 (NYPSC May 20, 1996) [hereinafter NY Competitive Opportunities Decision].

97. See Re Electric Industry Restructuring, 163 P.U.R. 4th 96, (Mass. DPU Aug. 16, 1995) [hereinafter Mass. Restructuring Decision] ("Over the past decade, increased wholesale electric competition and advances in combined-cycle gas-turbine technology have exposed a gap between the cost of generation on the wholesale market and the higher cost of generation reflected in current retail rates."); PaPUC Report, supra note 66, at 5 ("there is a significant difference between the marginal cost of electric power production and existing retail rates.... Current marginal costs are significantly lower than electric energy rates primarily because of reduced capital cost, improved production efficiencies, and favorable oil and gas prices.").

98. The states requiring rate cuts for small customers included California, Illinois, Maryland, Michigan, and Texas.

99. This was not surprising given that voters will tend to discount promises by politicians. Bernard Grofman, *The Neglected Role of the Status Quo in Models of Issue Voting*, 47 J. POL. 230 (1985). *See also*, Merrill and Grofman, Unified Theory of Voting, at 19–23. DOWNS, *supra* note 21, at 39. One would expect smaller customers, with less information and sophistication regarding the price gap, to more heavily discount promises of rate reductions than large industrial customers.

^{93.} Alfred E. Kahn, *The Deregulatory Tar Baby: The Precarious Balance Between Regulation and Deregulation, 1970–2000 and Henceforward,* 21 J. REG. ECON. 35, 46 (2002) [hereinafter Kahn (2002)] ("[T]he deregulation movement in electric power has been essentially opportunistic: practically no one was calling for it during the 1950s and 1960s, when retail prices declined some 30% in real terms... but deregulation became almost irresistible politically by the middle 1990s... where, it seemed certain, competitive prices would be far below regulated ones.").

explained by political pressure from organized large industrial customers or, instead, political entrepreneurs appealing to mass and diffuse consumer interest or both? The data does not suggest a conclusion tilting heavily either way. Table 1 below illustrates this by sorting price data on industrial and total rates into three groups: (i) states that were the first to adopt retail access (i.e., prior to 1998);¹⁰⁰ (ii) states that adopted retail access in the second wave of retail access from 1998–2000; and (iii) states that never seriously considered retail access.¹⁰¹ Although these groupings are not precise, and the data is far from perfect,¹⁰² it nonetheless provides a rough basis for determining whether the pattern of retail access is tied more closely to industrial rates, total rates, or neither.

 TABLE 1. THE PATTERN OF RETAIL ACCESS
 — TOTAL AND INDUSTRIAL RATES

 (AVERAGE REVENUE — CENTS/KWH)¹⁰³

Retail A	Retail Access Adopted 1996–1997			Retail Access Adopted 1998–2000			il Acces sly Con	s Not sidered
State	Total	Indus	State Total Indus S		State	Total	Indus	
Cal.	9.03	6.59	Ariz.	7.33	5.12	Ala.	5.56	3.89
N.Y.	10.71	4.95	Ark.	5.78	4.16	Colo.	5.95	4.34
Pa.	7.86	5.63	Del.	6.88	4.65	Fla.	7.01	4.81
N.H.	11.93	9.42	Conn.	10.30	7.70	Ga.	6.40	4.23
R.I.	9.58	7.61	Md.	6.99	4.14	Idaho	4.02	2.77
Mass.	9.59	8.18	Mich.	7.09	5.03	Ky.	4.16	2.91
I11.	7.46	5.11	N.M.	6.78	4.47	N.D.	5.70	4.30
Nev.	5.76	4.57	N.J.	10.17	7.94	S.C.	5.53	3.69
Mont.	4.80	3.19	Ohio	6.38	4.30	S.D.	6.26	4.44
Me.	9.75	6.61	Okla.	5.43	3.65	Tenn.	5.62	4.17
			Or.	4.90	3.50	Wis.	5.44	3.86

100. The period prior to 1998 was chosen as the cut-off because this is prior to the period when (i) any retail access legislation was implemented, or (ii) the ISO wholesale markets commenced operations. Consequently, the early states adopting retail access prior to 1998 did so on the belief that it would produce savings to consumers, not on any empirical evidence that this would occur or that the wholesale markets that were so critical to the success of retail access would function smoothly (or, at most, relying on the experiences in the United Kingdom and other countries). Admittedly, however, this distinction is a subjective one.

101. See notes to Table 4 below for a description of the method of distinguishing between (i) states that did not seriously consider retail access from (ii) those that undertook meaningful steps toward retail access (but ultimately did not adopt it).

102. The data is taken from the Department of Energy's Energy Information Administration. The data reflects average revenue (not rates) and is computed simply by dividing total sales (in kWhs) by total revenue from retail customers. The data is taken from the Form EIA-861 Database, which is available at http://www.eia.doe.gov/cneaf/electricity/page/eia861.html. Although the data is far from perfect, it is widely used. *See, e.g.*, Joskow (2000), *supra* note 67, at 135–36.

103. The data is stated in terms of average revenue/kWh and thus is a rough approximation of the rates paid by customers in the aggregate or grouped by major classification (e.g., residential, commercial, and industrial). It therefore eliminates the problems inherent in comparing actual rates, which differ across multiple classes of customers (some utilities have over twenty classes of retail customers) and across rate classifications (e.g., demand, energy, customer charges, etc.) and rate blocks (e.g., for first 200 kWh of usage).

292

Avg.	8.65	6.19		6.79	4.80		5.51	3.94
			<u>W. Va.</u>	5.07	3.78			
			Va.	5.88	3.82	Minn.	5.71	4.45
		L	Tex.	6.07	3.94	Wyo.	4.31	3.38

As Table 1 indicates, retail access occurred first in states that, as a group, had higher rates—both as measured by total rates and industrial rates.¹⁰⁴ Interestingly for purposes here, however, the pattern of total rates and industrial rates is almost precisely the same across these groupings. Table 2 below shows the proportionate decline in rates by group.

TABLE 2. RATE COMPARISON A	ACROSS GROUPS OF STATES
----------------------------	-------------------------

State Groupings	F (cer	Rates nt/kWh)	% Cor	nparison
	Total	Indust.	Total	Indust.
Group 1 (retail access adopted 1996–1997)	8.65	6.19	100%	100%
Group 2 (retail access adopted 1998–2000)	6.79	4.80	78.5%	77.5%
Group 3 (retail access not seriously considered)	5.51	3.94	63.7%	63.7%

(INDUSTRIAL RATES AND TOTAL RATES)

As Table 2 indicates, the pattern of retail access can be explained by either total rate or industrial rate comparisons.

If relative rates do not supply a solution, it is possible that relative loads may. One might expect retail access to occur first in the states with the largest industrial base. This might help explain the situation in Florida, where overall rate levels are relatively high, yet the state never seriously considered retail access—perhaps because its industrial base is extremely small. However, nationwide data do not support such an inference. As Table 3 below indicates, the relative size of industrial loads compared to total loads is consistent across all groupings of states and is highest in states never seriously considering retail access.

2004]

^{104.} It is noteworthy, as Table 2 indicates, that industrial rates are generally lower than average total rates. This however does not necessarily imply a subsidy. A comparison of residential and industrial rates on a cents/kWh basis will tend to produce lower industrial rates because industrial customers generally have a higher load factor than residential customers (load factor is the relationship between peak consumption and average hourly consumption). At a minimum, however, it suggests that, unlike the telecommunications industry, residential electric rates are not generally subsidized by large business customers. Cf. Robert W. Crandall & Jerry A. Hausman, Competition in U.S. Telecommunications Services: Effects of the 1996 Legislation, in DEREGULATION OF NETWORK INDUSTRIES: WHAT'S NEXT? 73 (Sam Peltzman & Clifford Winston eds., AEI-Brookings Joint Center for Regulatory Studies 2000).

Retail Access Adopted	Retail Access Adopted	Retail Access Not
1996–1997	1998–2000	Seriously Considered
22.4%	22.1%	26.7%

TABLE 3. Industrial Revenue as % of Total $\operatorname{Revenue}^{105}$

Ultimately, it may not be possible to differentiate between the influence of industrial customers and the mass consumer interest in spurring the retail access movement. Perhaps all that can be offered is the observation that industrial customers, due to their organizational strength and large per capita gains from retail access, were well positioned to, and did, place retail access on the legislative agenda, provide politicians information regarding the price gap, and supply a strong pro-consumer (voter) incentive for politicians to adopt retail access. However, it is unlikely that political pressure from industrial customers, standing alone, would have been insufficient to spur retail access. The potential net losses to utilities from retail access far exceeded the net gains to industrial customers, given that they comprise only 25% of utility revenues.¹⁰⁶ Thus, one would expect that industrial customers would, at most, succeed in lobbying for retail access for *their* loads, but not *all* loads. Yet programs singling out large customers are the exception rather than the rule.¹⁰⁷

It is also worth considering whether pressure from other organized industry groups, particularly independent producers, could have, when coupled with pressure from industrials, overcome utility interests without the assistance of political entrepreneurs promoting the mass consumer interest. It is true that independent producers constitute an influential pressure group (relatively small in number, with large potential per capita gains),¹⁰⁸ but their political strength does not help to explain the pattern of retail access. Retail access occurred first in the states with the highest total rates, but independent producers do not benefit from the price gap per se; rather, if anything, the correlation should be the opposite: (i) the higher the retail rate the more likely it includes over-market contracts (e.g., OF contracts) with independent producers that are at risk in a retail access environment; and (ii) the lower the market price for power the lower the potential gains in the near term from new entry by independent producers.¹⁰⁹ Thus, one would not expect political pressure asserted by independent producers to increase with the size of the price gap, but rather with other factors, such as the amount of load served in a state, with increasing pressure in the largest

^{105.} Table 3 uses revenue, rather than load data, as a more meaningful economic comparison of the relative significance of industrial load in a given state. It is not likely, however, that the data would differ significantly if load data were used, given the data in Table 2 comparing industrial rates to total rates.

^{106.} Becker (1983), *supra* note 40, at 371. It is of course possible, albeit not likely, that "deadweight costs" in Becker's formulation can account for the rest.

^{107.} Only two of the twenty-four states adopting retail access legislation (Oregon and Nevada) limited retail access to large customers. One of the twenty-four states (Nevada) originally adopted retail access for all customers, but subsequently constrained it to large customers following the California energy crisis.

^{108.} See White et al., supra note 72, at 256-57 (discussing interest group pressures, including from independent producers).

^{109.} *Id.* at 263 ("[Independent power producers] and energy marketing interests will press for a retail choice model whether there is a significant price gap or not.").

2004]

states—where lobbying costs per megawatt of demand are the lowest. However, as discussed later in this article, independent producer influence does not explain the demise of retail access, which stopped at the very time that its benefits were the greatest to independent producers due to rising market prices.

Thus, it seems inescapable that the diffuse small customer (voter) played a material role in spurring retail access, even if that role is difficult to isolate. That being said it is important to note that the consumer impetus for retail access did not necessarily mean that retail access legislation was a one-sided proposition favoring consumer interests to the exclusion of organized pressure groups. Despite the fact that utilities failed to halt the initiation of retail choice, the final regulatory bargain protected their interests fairly well.¹¹⁰ Utilities received substantial stranded cost recovery and, in most instances, the exclusive right to serve customers who did not switch suppliers. Other organized groups received benefits as well. Independent producers received protections on their existing agreements, new opportunities to compete for retail load switching to alternative suppliers, and opportunities to purchase utility generation in divestiture auctions. Customers, of course, received a choice of supplier, and sometimes guaranteed rate cuts. This allocation of benefits was generally consistent with Peltzman's hypothesis that legislators will apportion public benefits across industry groups according to marginal utility, and not to a single winning group.¹¹¹ Joskow predicted this allocation in 1996:

Because of the conflicting interests of these groups, the stage appears to be set for some kind of compromise in which all of the competing interests get something. A natural compromise looks something like the following. All customer groups, not just the large industrial customers, get some rate relief from the restructuring process, but not nearly as much as would be implied if the price gap [between retail and wholesale rates] were fully erased instantly. Utilities get most of their sunk costs commitments back through a customer access charge that is competitively neutral. In return, utilities must open up their retail franchises to competition, agree to turn over control of their transmission networks to independent operators, and "voluntarily" divest some or all of their non-nuclear generating assets to deal with vertical and horizontal market power concerns and to define a value for stranded costs. Independent power producers get their existing contracts secured, get access to retail customers, and an opportunity to buy utility power plans when they are auctioned. Environmental groups get assurances that funds will be set aside by the distribution company to pay for energy efficiency programs and to help to fund environmentally benign generating technologies.

2. The Spread of Retail Access Across the Nation: 1998–June 2000

During the thirty-month period between 1998 and June 2000, fourteen states adopted retail access legislation, bringing the total to twenty-four, and eleven others undertook meaningful steps toward retail access. By June 2000, it appeared possible that retail access soon would cover thirty-five states.

^{110.} Some would say too well. John Burritt McArthur, *Cost Responsibility or Regulatory Indulgence for Electricity's Stranded Costs?*, 47 AM. U. L. REV. 775 (1998) (criticizing stranded cost recovery as reflective of a "capture" theory of regulation).

^{111.} Peltzman (1976), supra note 2, at 9; Comment, Toward A More General Theory of Regulation, 19 J.L. & ECON. 241 (1976).

^{112.} White et al., supra note 72, at 260.

What explains this second wave of retail access? I first consider whether the existence of a large "price gap" can explain the continued spread of retail access during this period. As shown in Table 4 below, the first ten states adopting retail access had an average retail rate of 8.65 cents/kWh, but the figure dropped substantially for the fourteen states adopting retail access between 1998 and June 2000. This group had an average retail rate of 6.79 cents/kWh, and the eleven states taking meaningful steps toward retail access during that period had an average retail rate of 6.04 cents/kWh. If the two highest cost states (New Jersey and Connecticut) are removed from the second group (the fourteen states adopting retail access after 1997), the average retail rate of the remaining twelve states in Group 2 falls to 6.22 cents/kWh, which is nearly identical to those seriously considering retail access in Group 3.

TABLE 4. THE SPREAD OF RETAIL ACCESS

Group 1		Group 2		Group 3	
Retail Access Adopted 1996–1997		Retail Access Adopted 1998–June 2000		Meaningful Steps Toward Retail Access ¹¹³	
Cal.	9.03	Ariz.	7.33	Ind.	5.34
N.Y.	10.71	Ark.	5.78	Iowa	6.04
Pa.	7.86	Del.	6.88	Kan.	6.28
N.H.	11.93	Conn.	10.30	La.	5.78
R.I.	9.58	Md.	6.99	Miss.	5.98
Mass.	9.59	Mich.	7.09	Mo.	6.08
III.	7.46	N.M.	6.78	Neb.	5.30
Nev.	5.76	N.J.	10.17	N.C.	6.45
Mont.	4.80	Ohio	6.38	Utah	5.16
Me.	9.75	Okla.	5.43	Vt.	9.83
		Or.	4.90	Wash.	4.03
		Tex.	6.07		
		Va.	5.88		
		W. Va.	5.07		
Avg.	8.65		6.79		6.02

(AVERAGE REVENUE IN CENTS/KWH)

With an average retail rate of little more than 6 cents/kWh for twelve of the fourteen states in Group 2 (as well as those seriously considering retail access in

296

^{113.} States falling into Group 3 are those in which (i) the PUC or a legislative study commission recommended adopting retail access or taking significant steps toward its adoption (Kansas, Louisiana, Mississispi, Missouri, Nebraska, North Carolina, Utah, Vermont), (ii) retail access legislation progressed substantially, e.g., Indiana (consensus bill agreed to by utilities), or (iii) other meaningful steps were taken toward retail access, e.g., Iowa (retail pilot program approved), Washington (pilot program approved). The states appearing in Table 1 as "not seriously considering retail access" are states that did not exhibit any such significant progress toward retail choice.

Group 3), it becomes difficult to rest a retail access hypothesis primarily on the price gap. Assuming regulated transmission and distribution rates of 2-3 cents/kWh, the regulated generation rates in these states were likely close to the cost of new entry.¹¹⁴ The gap between regulated rates and short-run market prices was modest, given that wholesale market prices had risen to 2.5-3.5 cents/kWh by 1998–1999.¹¹⁵ Although the data does not permit definitive conclusions,¹¹⁶ it strongly suggests that the "price gap" explanation for retail access had eroded over time.

What then explains the spread of retail access across the nation? The answer lies partially in the fact that, although the consumer benefits of deregulation were declining, pressures from utilities for retail access were increasing. Unlike the period from 1994-1997, there were significant incentives for utilities to embrace deregulation. The first ten states (Group 1) established the principle that utilities would be entitled to recover substantially all their stranded-costs,¹¹⁷ thereby substantially mitigating the principal financial risk. Furthermore, the price gap in Group 2 was modest, thus placing less investment The combination of these two factors meant that the rents from at risk. regulation were relatively small, and those that existed were substantially protected by stranded cost recovery. Hence, an economic theory of regulation would have predicted increasing pressure from utilities to support deregulation, which was precisely what occurred in many states. Thus, the second wave of retail access began to resemble more closely Peltzman's explanation that deregulation occurs when producer rents are in decline.

It is worth considering, however, why the increasing support from utilities was not more than offset by declining consumer pressures—particularly if one assumes, as I posited above, that low information costs and the number of consumers (voters) maximized consumer political influence over retail access policy. The answer is likely that retail access continued to have pro-consumer appeal in numerous respects, even if that appeal declined appreciably. This was true with respect to both the interests of organized industrial customers and political entrepreneurs acting on behalf of the mass consumer interest. Industrial customers could continue to benefit from retail access with only a small price gap. There is greater retail competition for industrial customers than for residential customers given the lower marketing costs and other factors (the same is true in other markets, such as telecommunications). Industrial customers also are more likely to benefit from the range of services offered by retail suppliers, including electricity products that reward them for shaping their

^{114.} White et al., *supra* note 72, at 253 n.2.

^{115.} Hughes & Parece (2002), supra note 90, at 35.

^{116.} The data is inexact for two principal reasons: (i) the T&D rates for utilities vary widely across and within States, and (ii) wholesale power prices vary widely across regions and even within regions (if there is congestion).

^{117.} Stranded cost recovery differed by state and was not, in all cases, complete. As a general matter, stranded cost recovery tended to be higher if the utility agreed to divest its non-nuclear generation. Many restructuring cases, particularly in New York and Pennsylvania, were resolved by settlement, in which case the package of benefits to the utility were acceptable (e.g., switching rules, T&D rates), even if stranded cost recovery was not 100%.

demand and provide a range of energy management services.

Further, retail access continued to be attractive to political entrepreneurs. At a broad policy level, retail access allows politicians to offer voters a choice of electricity suppliers; a powerful political message for a society with such deep traditions in freedom of choice.¹¹⁸ It also is true that, although the potential economic benefits of that choice, e.g., lower prices, may have been declining, those benefits, even if modest, were not offset by any material political risks. Most of the available information on deregulation continued to be positive. From 1998 to early 2000, the commencement of retail access in California, Pennsylvania and other early states went relatively smoothly. The start-up of organized wholesale markets in California, PJM, New York, and New England also, with some exceptions, proceeded smoothly during this period. Furthermore, although wholesale price scalations or spikes of the kind that later confronted California occurred.¹¹⁹ All of these factors encouraged political to continue to view retail access as a reform effort with very few political (mass voter) risks.

Finally, given the connection between lower electricity rates and interstate competition for industrial loads and, hence, jobs, there continued to be a massmarket (consumer/voter) benefit to political entrepreneurs promoting retail choice for large industrial loads. As Table 3 indicates, the second wave of retail access states were primarily located in the same regions as the first states to adopt retail access. Connecticut followed the lead of Massachusetts, Rhode Island, and New York;¹²⁰ New Jersey, Delaware, and Maryland followed the lead of New York and Pennsylvania; Ohio followed the lead of Illinois and Pennsylvania; and Arizona, Oregon, and New Mexico followed the lead of This interstate competition was evident from the California and Nevada. beginning of retail access. As the CPUC stated in 1996, "our rates are too high and must be brought into alignment with regional averages if California is to sustain a competitive posture as we enter the twenty-first century."¹²¹ Similarly, the New York Public Service Commission concluded that the "large difference between New York's prices and the national average electric price should begin to shrink, [as a result of competition]" and "[a]s a result of these lower prices, New York's competitive position will improve and economic development will be furthered, with the creation of additional jobs and increased opportunities for businesses and residents."¹²² Other states offered the same justification.¹²³ This

298

^{118.} MILTON FRIEDMAN, CAPITALISM AND FREEDOM (Univ. Chi. Press 1962).

^{119.} Both New England and New York experienced periodic price spikes that were attributed to market design flaws or market manipulation. PJM experienced a spike in capacity prices that was characterized as market manipulation by one entity. The Midwest experienced its most severe price spikes in 1998 and 1999 before its wholesale market operator, the Midwest Independent Systems Operator (MISO), commenced operations.

^{120.} White et al., *supra* note 72, at 263 (predicting that Connecticut could not hold off for long with retail access spreading to each of its border states).

^{121.} Re Proposed Policies Governing Restructuring California's Electric Services Industry and Reforming Regulation, 166 P.U.R. 4th 1, 25 (CPUC 1996) (emphasis added).

^{122.} NY Competitive Opportunities Decision, supra note 96, at 35.

^{123.} See Mass. Restructuring Decision, supra note 97 ("Consumers in Massachusetts now pay some of

phenomenon helps explain why retail access was on the verge of spreading to so many other states (Group 3) that bordered on retail access states—at least until the California meltdown occurred, a topic that is next discussed.

3. The California Meltdown, Natural Gas Price Increases, and the Demise of Retail Access

If the spread of retail access was remarkable, so was its decline. In early 2000, twenty-four states had adopted retail access and it seemed as though this number would soon expand to thirty-five states (see Table 4). The retail access movement, however, collapsed in mid-2000. Since June 2000, (i) no state has adopted retail access legislation; (ii) eight of the twenty-four retail access states delayed, suspended or repealed their retail access legislation; and (iii) virtually all states considering retail access at that time halted those efforts, whether formally or informally.¹²⁴ The number of retail access states now stands at sixteen.

What explains this extraordinary shift? I think it uncontroversial to suggest that two primary factors explain the shift: (i) the increasing political risks of retail access, i.e., the realization by politicians that it does not always result in lower prices; and (ii) rising electricity prices across the nation, which eliminated the price gap in most regions. I discuss below each factor individually and then consider which factor provides the stronger causal link.

The California meltdown can be summarized fairly briefly. In June 2000, with virtually no notice, electricity prices skyrocketed in California and surged even further when natural gas prices spiked in December 2000.¹²⁵ By January 2001, the two largest utilities, Pacific Gas and Electric Company (PG&E) and Southern California Edison Company, were headed toward insolvency. PG&E filed for bankruptcy in April 2001. A few months later, the crisis had largely subsided¹²⁶ but, in one short year, the California restructuring model—which had spurred nearly half the nation to adopt retail access—had imploded.

There seems little doubt that the California meltdown contributed to the decline of retail access nationwide, although its impact is difficult to measure. Despite the fact that much of the meltdown was due to the peculiar market rules adopted in California,¹²⁷ the seriousness and visibility of the crisis—price spikes,

124. In some states, legislative task forces or the state PUC issued reports after June 2000, finding retail access not in the public interest (e.g., Louisiana, Nebraska, Utah, and Oregon). In other states, the consideration of retail access atrophied without formal action.

125. HUNT, supra note 64, at 382-83; Jurewitz, supra note 79, at 16.

126. A number of factors converged to moderate electricity prices, including lower gas prices, increased hydroelectric output, lower demands, and the FERC's order limiting wholesale prices to marginal cost. STAFF OF THE FED. ENERGY REGULATORY COMM'N, REPORT ON THE ECONOMIC IMPACTS ON WESTERN UTILITIES AND RATEPAYERS OF PRICE CAPS ON SPOT MARKET SALES (Jan. 31, 2002); see also San Diego Gas & Elec. Co., 95 F.E.R.C. ¶ 61,418 (2001).

127. See, e.g., Kahn (2002), supra note 93, at 45.

the highest electricity rates in the United States.... The success of the Department's initiative to restructure the electric industry will ultimately be judged on its ability to reduce costs and provide more and better choices to electricity consumers in Massachusetts. The terms on which electricity is made available are especially critical to the ability of industries in Massachusetts to compete nationally and internationally, thereby providing good jobs and contributing to a sound economy.").

blackouts, and bankruptcies—were front-page news across the nation. Coupled with the more isolated but, nonetheless, visible price spikes in New York and New England, the public perception of deregulation began shifting markedly. Information on deregulation was now predominantly negative. There seems to be little doubt that this negative information reduced the incentives for political entrepreneurs to embrace retail access as a pro-consumer reform initiative. Yet, isolating that impact is difficult because of the presence of the second phenomenon—the shrinking price gap—that was occurring simultaneously.

Concurrent to the California crisis, wholesale electricity prices were rising across the nation and rapidly eliminating any remaining price gap in most regions. Wholesale price increases were caused by some of the same factors that plagued California—rising natural gas costs and tightening supply and demand conditions—although the effects were less severe in other regions because they did not share in the market manipulations and market design flaws that afflicted California.¹²⁸

The following two tables attempt to quantify this impact in various regions. The first data set is from the West, which shouldered many of California's burdens. Table 5 compares total rates in 1998 and 2001 for the five western states that would later roll-back their retail access programs. It shows an average price increase of 23.9% in these states from the date when retail access commenced until the date when it died, an extraordinary figure to occur over three short years.¹²⁹ Moreover, this is a conservative measure of the impact of wholesale price increases, since not all utilities, particularly in California and Nevada, were allowed to flow rising wholesale costs through fully into retail rates.

State	1998	2001	Increase
N.M.	6.78	7.16	5.6%
Nev.	5.76	7.86	36.4%
Or.	4.90	5.44	11.0%
Cal.	9.03	11.78	30.4%
Mont.	4.80	6.54	36.2%
Av	23.9%		

 TABLE 5. RATE INCREASES (1998–2001) IN FIVE WESTERN STATES ROLLING

 BACK RETAIL ACCESS (AVERAGE REVENUE – CENTS/KWH)

Other regions were less severely impacted, but wholesale electricity prices, nonetheless, rose significantly from the \$20–25/megawatt per hour (mWh) level

300

^{128.} Natural gas prices rose across the nation from historical levels of \$2/mmbtu up to \$8/mmbtu, thereby raising wholesale power prices in all regions (because natural gas is on the margin in most regions). OFFICE OF MKT. OVERSIGHT & INVESTIGATIONS, FED. ENERGY REGLUATORY COMM'N, 2003/04 WINTER ENERGY MARKET ASSESSMENT (Nov. 13, 2003).

^{129.} In California, alone, total wholesale electricity costs in the California ISO had quadrupled from \$7.4 billion in 1999 to approximately \$27 billion in 2000 and 2001. 2002 ANJALI SHEFFRIN, CAL. INDEP. STATE OPERATOR, REVIEW OF THE STATE OF THE MARKET FOR 2002 (Apr. 30, 2003) available at http://www.caiso.com/docs/2003/05/21/200305210915321905.pdf.

as retail access was implemented in 1996–1999 to a range of \$30–50/mWh by 2000–2001. Table 6 provides average market price data from 2000–2001 for the three centralized markets in the Northeast.

Region	2000	2001
PJM (Load Weighted Average LMP)	30.72	36.65
New England (Load Weighted Average Energy)	45.95	43.03
New York (Average Daily Energy + Ancillary Services)	N/A	51.39

TABLE 6. WHOLESALE ELECTRIC PRICES (2000–2001)¹³⁰ (\$\$/MWH)

Given the fact that the remainder of states considering retail access had total rates of approximately 6 cents/kWh (see Table 1), wholesale prices of 3-5 cents/kWh, and wire charges of approximately 2–3 cents/kWh, which meant that the price gap had disappeared. Therefore, it is not surprising that, with the price gap shrinking or disappearing across the nation,¹³¹ the consumer-driven retail access movement grounded to a halt.

The foregoing data is not particularly helpful, however, in isolating which factor—the negative "information" flowing from the California crisis or the declining or disappearing price gap—played a larger role in the decline of retail access. The data from Table 5 is not helpful because it only covers the states in the Western Interconnect. These states were directly affected by both the California meltdown and broader market trends, i.e., increases in the price of natural gas and declining reserve margins. Also, the data from Table 6 is not very helpful because, although it illustrates the impact of rising natural gas prices and tightening demand conditions on the three centralized electric markets in the Northeast, those three regions had already embraced retail access.

One must therefore look elsewhere to explore the question of whether the retail access movement died because risk-adverse political entrepreneurs no longer supported retail access in the face of the California crises or, alternatively, because the price gap had all but disappeared in states yet to adopt retail access. This inquiry requires data from states that (i) are not located in the Western Interconnect, and (ii) are not substantially reliant on natural gas as a boiler fuel. Such data would allow consideration of whether states may have turned away from retail access despite the fact that the price gap in their region had not

^{130. 2002} PJM INTERCONNECTION, STATE OF THE MARKET (Mar. 5, 2003); 2002 POTOMAC ECON., LTD., STATE OF THE MARKET REPORT NEW YORK ISO (June 2003); 2002 ISO NEW ENGLAND INC., ANNUAL MARKETS REPORT MAY-DECEMBER 2002 (Aug. 13, 2003).

^{131.} These energy prices actually *understate* the extent to which the price gap had shrunk (or disappeared) because (i) they do not include additional costs (e.g., capacity) required in most organized markets (which can add \$5/mWh or more to energy prices), and (ii) they represent wholesale prices, not retail prices that a competing retailer would charge in a retail access environment. Although regulated rates would have risen due to increased fuel (natural gas) and purchase power costs, these increases would be small in comparison to the increase in market rates because a significant portion of utility rates (sunk costs and production by nuclear or coal units) are unaffected by changes in market prices.

declined appreciably.

Unfortunately, the data is not sufficiently reliable to supply a firm answer. In most of the regions that are not highly dependent on natural gas, there are no centralized energy markets and, hence, only limited data on energy prices. Prices also differ even within regions due to transmission constraints. Furthermore, even in regions not highly dependent on natural gas, increases in natural gas prices can have a material impact on prices during peak hours, when natural-gas fired generation is on the margin. For example, the Midwest region, which is not heavily dependent on natural gas as a boiler fuel, experienced peak electricity prices in 2003 that were significantly higher than 2002 prices. This was largely due to rising natural gas prices.¹³² Also, regulated rates in these regions, where coal-fired generation predominates, tend to be relatively low. This means that the price gap was already small to begin with.

With these rather large caveats in mind, it is still worth noting that, in seven non-Western states that were not heavily dependent on natural gas, the retail access movement, however strong or halting at the time, died during the California crisis. The following seven states had considered retail access at the time of the California crisis but subsequently abandoned it as the crisis unfolded: (i) in October 2000, the Alabama PSC determined that deregulation was not in the public interest; (ii) in February 2001, the Arkansas legislature halted the implementation of retail access that had been enacted in 1999; (iii) in January 2001, the Chairman of the Georgia PSC testified in the legislature that restructuring was a failure; (iv) in September 2000, the Minnesota Department of Commerce recommended against retail access; (v) in May 2001, the Mississippi PSC recommended against adopting retail access; (vi) in October 2001, a legislative commission in Nebraska recommended against retail access.¹³⁴

The foregoing assumes that consumer-oriented pressures, whether due to California or the shrinking price gap, halted the spread of retail access. This assumption is further supported by the fact that retail access died in every region at precisely the time when utility support for it was at its zenith. By then, the principle of stranded cost recovery was well established, and the price gap was

302

^{132.} The average peak price (Cinergy Hub—Day Ahead) in February 2002 was \$20/mWh and in February 2003 it was \$47/mWh. The average peak price in July and August 2002 was \$35/mWh and \$32/mWh, respectively, and in July and August 2003 it was \$38/mWh and \$43/mWh, respectively. *Compare* 2002 MIDWEST INDEP. SYS. OPERATOR, STATE OF MARKET REPORT (May 2003), *with* 2003 MIDWEST INDEP. SYS. OPERATOR, STATE OF MARKET REPORT (May 2004).

^{133.} It should be noted that the October 2001 date is technically a few months after calm had been restored to California electricity markets.

^{134.} AM. PUB. POWER ASS'N., START DATES FOR RETAIL CHOICE, available at http://www.appanet.org/aboutappa/index.cfm?ItemNumber=9567 (updated June 7, 2004). One other state, North Carolina, is interesting because a legislative study commission recommended *in favor* for retail access in April 2000, two months *before* the California crisis started, but, not surprisingly, retail access died a silent death thereafter. In addition, it should be noted that retail access movements were halted in other states at the same time (e.g., Louisiana, New Mexico, Oregon, and Utah), but these actions are less helpful in isolating the impact of California because they occurred either in western states or states that are heavily dependent on natural gas.

shrinking as supply and demand tightened in many regions and natural gas price began to rise in 2000–2001. The financial benefit of deregulation to utilities was best illustrated during 2001, when unregulated generation companies were trading at up to eighty times earnings, reflecting Wall Street's expectations for higher growth and profits in the unregulated sector. By contrast, the typical regulated utility stock was trading in the traditional range of ten to twenty times earnings. There were powerful incentives for utilities to support retail access and spin off their generation assets into unregulated subsidiaries; however, these factors did nothing to stem the decline of retail access.¹³⁵

4. The Future of Retail Access

Is retail access dead or will it sweep the nation again some day? In the long run, one would hope that traditional regulation of the generation sector does not prevail, given the weak normative case for it. Putting normative considerations aside, however, traditional regulation also will remain vulnerable to opportunistic attacks from organized groups, e.g., large industrials, independent producers, and even some utilities, or political entrepreneurs who stand to reap large gains from a change in the status quo. In the short run, the conditions that make these attacks profitable are not likely to reappear, and traditional regulation should therefore remain alive and well.

The data below provides market price data for the years 2001 and 2002. The data is helpful because 2002 was a year of relatively low natural gas prices, whereas 2001 exhibited significantly higher natural gas prices. The data for 2001 is likely to be similar to the more recent data from 2003, when higher natural gas prices reappeared. The data for 2002 is particularly informative because, even with declines in natural gas prices, wholesale market prices remained in the range of 3–5 cents/kWh.

TABLE 7.	WHOLESALE	ELECTRICITY	PRICES	(2001–2002) ¹³⁰ ((\$\$/MWH))
----------	-----------	-------------	--------	------------	--------------------	------------	---

....

Region	2001	2002
California ISO (energy + ancillary services)	116 ¹³⁷	43.00
New England ISO (energy, ancillary services and capacity)	47.33	41.75

^{135.} The merchant generation and trading model, however, collapsed following the bankruptcy of Enron in December 2001. If the retail access movement had died in 2002, one could correlate it with utility opposition—given that Wall Street had begun punishing unregulated firms as entities with leveraged balance sheets, few long term contracts, questionable accounting practices, and stock selling into markets awash in excess capacity. But the rollback of retail access had occurred long before then, with all eight states rolling back their retail access programs doing so prior to 2002.

^{136.} All data is from the April 2003 State of the Market Reports submitted to the FERC.

^{137.} Estimated based on data provided by California ISO, which stated that total electricity expenditures in 2002 of \$10 billion translated into an average price of \$43/mWh. Total expenditures in 2001 were \$27 billion.

New York ISO (energy + ancillary services)	51.39	49.77
PJM ISO (load-weighted LMP)	36.65	31.60
Midwest ISO (Into Cinergy - Peak)	N/A	25.58

If one assumes a T&D charge of 2-3 cents/kWh, regulated rates must be in the range of 6-7 cents/kWh or more for there to be any material price gap in all regions but the Midwest. As a comparison, Table 8 provides regulated rates (2002) in the two regions where retail access is limited to nonexistent (the Midwest and Southeast).

TABLE 8. 2002 RATES IN NON-RETAIL ACCESS STATES ¹³⁸

VERAGE R	EVENU.	E – CEN	1S/KWI
Midwo	est	Sout	ieast
Ind.	5.38	Ala.	5.67
Iowa	6.07	Ark.	5.79
Wis.	6.24	Fla.	7.42
N.D.	5.48	Ga.	6.24
S.D.	6.28	La.	5.84
Minn.	5.88	Miss.	6.21
		N.C.	6.60
		S.C.	5.81
Average	5.89		6.20

(MIDWEST AND SOUTH)

The data suggests that a very small price gap still exists in the Midwest. The average regulated rate of 5.89 cents/kWh compares to a wholesale (on peak) price of 2.5 cents/kWh in 2002 (and significantly higher prices in 2003),¹³⁹ leaving a small (or nonexistent) price gap if we assume a wire charge of 2–3 cents/kWh. The data is less conclusive in the Southeast, given that there is no centralized market and thus wholesale prices from that region are difficult to collect (other than "into Entergy" prices). However, because many areas of the Southeast are dependent on natural gas as a boiler fuel (particularly Florida and Louisiana), it is probably fair to assume wholesale prices of 3 cents/kWh or

^{138.} Data from the year 2002 is listed by Department of Energy as "estimated" data, but it is doubtful the final data would differ substantially. It is noteworthy that the 2002 data does not differ substantially from the 2001 data for the midwest states (which are less impacted by natural gas prices), but there is a material (although not large) decline in the southeastern states. The 2001 data for the midwestern states is 5.85 cents/kWh and is 6.42 cents/kWh for the southeastern states.

^{139.} See supra note 132. It should be noted that the midwest data is incomplete in several respects. First, it reflects on-peak prices and thus tends to be higher than all-hours prices. Second, the data does not include ancillary service costs. Third, the data is an amalgam of all midwest sub-regions and thus masks price differentials within regions, such as in Wisconsin, where prices tend to be higher. Fourth, the data is load-weighted by month, but averaged over the course of the year, and therefore tends to lower the annual average.

above until natural gas prices decline to historic levels.¹⁴⁰ For example, with natural gas at \$5/mmbtu, the marginal cost of supply from a new, efficient, combined cycle gas turbine would be at least \$35 and possibly higher.¹⁴¹ With prices at that level, and an average regulated retail rate of over 6 cents/kWh, the prospect of a consumer-driven retail access movement in the Southeast seems remote.

It is also important to bear in mind that these wholesale prices tend to understate the political impediments to retail access. Unlike the period from 1994 to 1997, when retail access gained momentum, politicians, in the future, will not focus solely on wholesale prices in computing a price gap; they will instead consider the competitive retail prices being offered to customers in retail access states. On this score, the information is not encouraging. As noted by Kenneth Rose, there are very few retail access states, even the highest cost states, in which retail suppliers are offering residential and small commercial retail customers rates lower than the rates charged by the local distribution company holding the right to serve default customers.¹⁴² Ultimately, this means that tax relief by deregulation has not lived up to its promises. Not surprisingly, this situation has caused consumer advocates, even in high cost states, to urge legislators to abandon retail access.¹⁴³

Finally, if the lack of mass consumer support is not enough, there is also little support today for retail access from utilities. Unlike the period between 1999–2001, Wall Street does not reward merchant generation portfolios; rather, utilities are rewarded for "back to basics" strategies that focus on serving regulated customers by balancing resource portfolios. Consistent with this investment climate, many regulated utilities are purchasing generation assets from their unregulated affiliates to serve their bundled customers, much to the consternation of their competitors in the independent generation business.¹⁴⁴

^{140.} Even from new efficient combined-cycle unit with a heat rate of 8,000–9,000 btu/kWh, natural gas prices at \$3-\$4/mmbtu (the marginal cost of production) range from \$24/mWh to \$36/mWh.

^{141.} Data from the Entergy region suggests that significant new entry has pushed market prices down to a level consistent with a heat rate of 9,000 kwh/mmbtu or less.

^{142.} KENNETH ROSE, INST. OF PUB. UTIL., MICH. STATE UNIV., 2003 PERFORMANCE REVIEW OF ELECTRIC POWER MARKETS (Aug. 29, 2003) (review conducted for the Virginia State Corporation Commission as Part I of the Commission's annual report to the Virginia General Assembly).

^{143.} Citizen Power, a consumer group, stated that "[t]he [Ohio] General Assembly should reinstitute regulation of electric generation prices and supply before the [rate caps expire]." New Jersey Citizen Action stated that: "We don't see competition on the horizon and from the beginning citizens have said we don't want deregulation for the sake of deregulation. It's the worst of both worlds, we'll have higher rates and unregulated monopolies." VA. STATE CORP. COMM'N, REPORT TO THE COMMISSION ON ELECTRIC UTILITY RESTRUCTURING OF THE VIRGINIA ASSEMBLY AND THE GOVERNOR OF THE COMMONWEALTH OF VIRGINIA vi (Aug. 29, 2003) (alteration in original). And, one of the nation's leading consumer organizations, the Consumer Energy Council of America, although stopping short of condemning retail access, concluded that "creation of a retail competitive market is not the only means by which consumers can be offered choices about their electric service" and has emphasized the need for "stable, predictable and equitable prices for electric service"—the hallmarks of regulated rates. See CONSUMER ENERGY COUNCIL OF AM., supra note 59, at I, IV, VII. Consumer advocates also have questioned the FERC's deregulation of wholesale prices. Cynthia S. Bogorad & David W. Penn, Cost-of-Service Rates to Market-Based Rates to Price Caps to ?!#?#!?, 14 ELEC. J. at 61, 70 n.4 (May 2001).

^{144.} S. Power Co., 104 F.E.R.C. ¶ 61,041 (2003); Entergy Servs., Inc., 103 F.E.R.C. ¶ 61,256 (2003).

rather than increasing their investment in unregulated generation or otherwise preparing for retail choice. Although it seems doubtful that this situation will prevail over the long-term,¹⁴⁵ there is little doubt that utility support for retail choice is minimal to nonexistent.

And so, we are left with the inescapable conclusion that retail access in most regions is unlikely to recur any time soon. Ironically, the exception may be consumer pressure for retail access in the West, where regulated rates are again far above competitive levels. This is due to the debt and long-term contracts incurred during the California crisis. In fact, the rates for certain western utilities are now higher than they were when deregulation began. As already evident in California, the emergence of a large gap between regulated rates and competitive wholesale prices will no doubt create political pressure for retail access again.¹⁴⁶

One related question is whether, given the disappointing results of retail access for smaller customers (e.g., residentials), future pressure for retail access will focus principally on providing access to organized industrial customers. Prior experience suggests this intuitive result may not occur (only two states, Oregon and Nevada, adopted retail access limited to large customers). Recent history is consistent with this experience.¹⁴⁷

B. The California Meltdown (Regulatory Reentry)

The previous section discussed the impact of the California meltdown on the spread of retail access nationwide. This section discusses the California meltdown itself, and in particular, the state and federal political responses to it.

The regrettable history of the California meltdown has been described adequately elsewhere and there is no need to repeat its chronology here.¹⁴⁸ In

146. Rebecca Smith, Schwarzenegger May Return to Energy-Deregulation Model, WALL ST. J., Oct. 10, 2003, at A5; California PUC's Peevey Unveils His Retail Choice Proposal, ELEC. POWER DAILY, Apr. 13, 2004, at 1.

In theory, utilities should support retail access when the present value of the rents achieved from 145 future regulation are less than the costs of supporting regulation. The rents are normally achieved by regulation that restricts new entry or increases the costs of competitors. Neither form of regulation seems very likely (or profitable) in the generation sector of the electric industry over the long run. Utilities can retain their retail franchise by opposing retail access, but they have limited ability to stifle wholesale competition to supply power to their regulated retail loads. Entry by new generators is accomplished relatively easily and they compete aggressively with utilities to supply load growth. Many states require organized solicitations for new generation, and although utility generation has won in many instances (e.g., Florida, Georgia, Louisiana, and Indiana), the political pressure from independent producers has been intense and litigation continues on many of these solicitations. The fact that the utilities were somewhat successful during a period of tremendous upheaval in wholesale markets (which undermined regulators' confidence in relying on market purchases) does not mean they will be successful over the long run. Moreover, regulation places asymmetric risks on utilitiesallowing a regulated return for good investments and threatening disallowances for bad ones. These risks are particularly serious for new supply additions. Therefore it will be more difficult for utilities to defend stranded-cost recovery for these assets, given the onset of retail access in nearly half the country, than it was to seek stranded-cost recovery for nuclear plants constructed in the 1970s.

^{147.} Ark. PSC Staff Wary of Partial Retail Choice, ELEC. POWER DAILY, June 2, 2004, at 2 (recommending against retail choice only for large users, citing expense, low rates, and lack of utility support).

^{148.} For two excellent summaries, see Jurewitz, supra note 79; and HUNT, supra note 64, at 375–394 app. C. For an unvarnished criticism of California's policies that contributed to the meltdown, see Kahn (2002), supra note 93, at 47–53.

summary, a combination of factors in California led to a dysfunctional market in which demand exceeded supply; there was no significant demand elasticity; input (gas) prices skyrocketed; sellers manipulated an already tight market; electric prices rose to unprecedented levels; and utilities could not increase rates to consumers nor could they hedge their exposure. Bankruptcies ensued, as did rolling blackouts, and the governmental response in California was, at best, ineffective and, at worst, counterproductive.

This article has the advantage of avoiding the normative question of what regulators should have done in response to this crisis. It focuses instead on why state and federal regulators reacted as they did. Two levels of analysis are offered. The first level brushes with a broad stroke, noting the obvious fact that both the State of California and, ultimately, the FERC intervened on behalf of the consumer. The former led a consumer-oriented litigation campaign, whereas the latter capped prices at marginal costs beginning in June 2001.¹⁴⁹ This intervention was fully consistent with Peltzman's hypothesis that regulation will act as a "buffer" on natural market cycles, i.e., tending toward the consumer interest as prices rise and tending toward the producer interest as prices fall. Discussed below are the FERC's actions to protect merchants as their stocks collapsed in 2002. This hardly requires much explanation, nor is it anything new.¹⁵⁰

The second set of observations puts a somewhat finer point on the actions of California regulators, which underscores the limits of influence by small, organized pressure groups. By the fall of 2000, the crisis was in full swing; prices had risen far above historic levels and had stayed there for several months. With no end in sight, the utilities were taking on growing liabilities, and concerns regarding their solvency were beginning to grow. However, California had not reached the point of no return. Rolling blackouts had yet not occurred, and the utilities were still solvent. There was an opportunity to avoid a complete meltdown, if, but only if, the utilities were allowed to hedge their exposure to escalating spot market prices by entering into long-term contracts.¹⁵¹ They were not previously permitted to do so because the original design of the California market required utilities to rely solely on the spot market. This restriction was based on the assumption that such a condition was necessary to develop a deep, liquid, wholesale market and to properly price electricity to customers who were considering switching suppliers.

Considering the political pressures facing California at this point, one might reasonably have predicted that California regulators would have allowed the

^{149.} San Diego Gas & Elec. Co., 95 F.E.R.C. ¶ 61,418 (2001).

^{150. &}quot;[If there is an unusual increase in prices, some people are] perfectly convinced that the rise with which they have to contend for the moment is unnatural, artificial, and wholly unjustifiable, being merely the wicked work of people who want to enrich themselves This has been so since the dawn of history ... but no amount of historical retrospect seems to be of much use. The same absurdity crops up generation after generation." EDWIN CANNAN, WHY SOME PRICES SHOULD RISE, *reprinted in* AN ECONOMIST'S PROTEST at 23 (Staples Press Ltd. 1927). See also 1 ADAM SMITH, AN INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS: THE GLASGOW EDITION OF THE WORKS AND CORRESPONDENCE OF ADAM SMITH 526–27 (R.H. Campbell et al. eds., Oxford Univ. Press 1976). See COASE, supra note 20, at 50–54.

^{151.} Jurewitz, supra note 79, at 20-21.

utilities to hedge their exposure in late 2000. There was certainly a sound normative basis for doing so and, importantly, such a result could have provided a reasonable allocation of benefits among organized pressure groups. A CPUC order allowing utilities to enter into long-term contracts with independent producers would have benefited two important pressure groups—utilities and independent power producers (IPPs).¹⁵² The utilities would have received protection from the volatile spot markets, and the producers would have received a long-term earnings stream, something both equity and debt markets tend to reward. Although this result would not necessarily have benefited the other well-organized pressure group (industrials), it is not clear that they would have been substantially harmed either.¹⁵³

Of course, this is not what happened. California regulators did not adopt this solution, and instead chose to plead with the FERC to intervene and cap spot The question is why? There are perhaps many reasons, market prices. including: deep-seeded enmity in California toward the utilities; outrage toward the profits being earned by the generators; and otherwise dysfunctional politics in Ĉalifornia.¹⁵⁴ For these reasons, it seems unwise to draw any general conclusions from this one element of the California crisis. However, it does serve as a reminder of the limited influence of organized pressure groups in a situation where politicians are addressing very public and palpable harm to consumer (voter) interests. The crisis was front-page news in San Diego in the summer of 2000 when ratepayers were initially asked to bear the full effects from the skyrocketing prices.¹⁵⁵ As the crisis grew, it threatened supply shortages that could affect all aspects of the California economy, particularly the high-tech industry in Silicon Valley. The solution of "hedging" the utilities' exposure would have required regulators to accept high-priced, long-term contracts. These contracts would have, in effect, wiped out much or all of the rate "savings" upon which the California experiment had initially rested. Apparently, this was too much to swallow politically. However, it was the very result that came to pass in the end when the state was forced to step in and enter into long-term contracts due to the utilities' insolvency in early 2001.

C. Wholesale Market Reform

From 1996–2001, the FERC adopted or proposed three major electric rulemakings (Order No. 888, Order No. 2000, and SMD) to restructure wholesale electric markets. This section first provides a brief overview of these rulemakings, some broad observations regarding which theory of regulation best explains them, and compares the relative success of Order No. 2000 with the relative failure of SMD.

^{152.} Both are relatively small in number, with relatively homogenous interests (at least on this issue), and large per capita gains from a positive governmental response to the crisis.

^{153.} In retrospect, such a result would have actually benefited them and, even at the time, allowing the utilities to hedge their "default" load obligations would still have allowed large industrial customers to shop for electricity and achieve lower rates once the crisis subsided.

^{154.} Jurewitz, *supra* note 79, at 23.

^{155.} Id. at 18.

1. Background

In 1996, the FERC adopted its first major rulemaking on wholesale market reform—Order No. 888.¹⁵⁶ Order No. 888 required all vertically integrated utilities to provide competitors with access to their transmission lines. The purpose of this broad remedy was to facilitate competition in the wholesale generation sector, as well as facilitate the nascent retail access movement. However, Order No. 888 recognized that imposing open access on a fragmented utility industry represented only a partial solution. Thus, Order No. 888 encouraged, but did not require, utilities to form regional Independent System Operators (ISOs) to operate the combined transmission systems of all utilities in a given region.¹⁵⁷ The three main benefits of ISOs were: (i) having a single entity manage the network effects of transmission; (ii) creating a single transmission rate for service within a region, thereby eliminating the inefficiencies of additive (pancaked) embedded cost rates; and (iii) having an independent entity with no interest in the generation business making decisions on rationing scarce transmission capacity.¹⁵⁸

Three years later, in 1999, the FERC adopted its second major rulemaking, Order No. 2000, which continued the emphasis on regional coordination and independence that began with Order No. 888's support for ISOs.¹⁵⁹ Order No. 2000 sought to encourage every region to create regional transmission organizations (RTOs) to operate and plan the nation's transmission grid. These RTOs would have more expansive powers than ISOs, operate more markets, and cover a larger geographic area.¹⁶⁰ However laudable these objectives may have been, the means by which Order No. 2000 sought to achieve them was quite Order No. 2000 did not require utilities to join RTOs. Rather, unusual. compliance with Order No. 2000 was "voluntary."¹⁶¹ The FERC's stated purpose for this voluntary approach was to avoid litigation and facilitate industry cooperation.¹⁶² Order No. 2000 also permitted wide discretion to utilities in creating the rules for transmission, energy, and ancillary service markets. The stated purpose of this flexibility was that the industry was better situated to develop fair and efficient rules than the FERC.¹⁶³

162. Although some utilities scoffed at the notion of "voluntariness" as a legal artifice, the federal courts upheld the FERC, taking it at its word that Order No. 2000 was merely voluntary. Pub. Util. Dist. No. 1 v. FERC, 272 F.3d 607 (D.C. Cir. 2001). Future events would support the court's conclusion in this regard, as the FERC did not take any significant action against utilities that failed to join an RTO. Recently, however, the FERC initiated an action that would, for the first time, order a utility to join an RTO, albeit under special circumstances. New PJM Cos., 105 F.E.R.C. \P 61,251 (2003).

163. Each region thus became laboratories for innovation in the federal system. New State Ice Co. v. Liebmann, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting)

^{156.} Order No. 888, *supra* note 9.

^{157.} Id. at 31,730 ("While the Commission is not requiring any utility to form an ISO at this time, we wish to encourage the formation of properly-structured ISOs.").

^{158.} See William W. Hogan, A Wholesale Pool Spot Market Must be Administered by the Independent System Operator: Avoiding the Separation Fallacy, 8 ELEC. J. at 26 (Dec. 1995); Richard J. Pierce, Jr., The Advantages of De-Integrating the Electricity Industry, 7 ELEC. J. at 16 (Nov. 1994).

^{159.} Order No. 2000, supra note 10.

^{160.} Id. at 31,046.

^{161.} Order No. 2000, supra note 10, at 31,028.

However, before Order No. 2000's proposed deadline for RTOs in December 2001, the FERC aborted the effort. In August 2001, President George W. Bush appointed a new FERC Chairman, Pat Wood III, and the Wood Commission abandoned some of the central tenets of Order No. 2000. The voluntary and experimental nature of Order No. 2000 had, in the view of the Wood Commission, fostered certain small and oddly shaped proposed RTOs, as well as a multiplicity of market designs.¹⁶⁴ Partially influenced by the California meltdown, which made painfully clear that poor market designs can harm consumers, the Wood Commission proposed a new rulemaking, the Standard Market Design (SMD) rulemaking.¹⁶⁵ The SMD rulemaking departed from Order No. 2000 in three important respects. First, the prescriptions of the SMD rulemaking were mandatory, not voluntary. Second, SMD imposed a standard market design for every RTO. The standard market design was the locational marginal pricing (LMP) model then in use in New York and PJM. Third, the SMD proposed to eliminate discrimination between wholesale customers and bundled retail customers in the provision of transmission service. In prior rulemakings, the FERC had declined to exert jurisdiction over the transmission component of bundled retail service, leaving regulation of those matters entirely to the states.¹⁶⁶

The SMD rulemaking was never implemented because it was stymied by opposition from politicians and utilities in the West and Southeast. The western states had no desire for a federally imposed market structure, nor any confidence in the FERC's ability to police it after the California crisis. The southeastern states saw SMD as an intrusion on their closely guarded jurisdiction, and they did not see a need for market reform given that no southern states had yet adopted retail access.¹⁶⁷ With the backing of regional legislators, bills were introduced in Congress to put a halt to SMD. The states in these regions also vowed to block SMD by refusing to approve the transfer of control over their utilities' transmission facilities that was necessary for RTO membership. In April 2003, the FERC saw the writing on the wall and voluntarily scaled back its SMD proposal;¹⁶⁸ however, this was not enough to appease SMD's foes. With

167. Part of their opposition centered on a LMP market design. Typically, LMP is opposed because it is (i) too complex, (ii) eliminates subsidies enjoyed by some through average cost pricing, or (iii) "overpays" generators because all bidders are paid the market clearing price at their location, rather than being paid only "what they bid." For a discussion of the latter, see Alfred E. Kahn et al., Uniform Pricing or Pay-as-Bid Pricing: A Dilemma for California and Beyond, 14 Elec. J. at 70 (July 2001).

168. FED. ENERGY REGULATORY COMM'N, WHITE PAPER: WHOLESALE POWER MARKET PLATFORM (Apr. 28, 2003).

^{164.} The Wood Commission first sought to remedy this by encouraging the formation of four large RTOs, one each in the western Interconnect, the Southeast, the Northeast, and the Midwest. See Reg'l Transmission Orgs., 96 F.E.R.C. ¶ 61,066 (2001). This initiative failed, however, because the parties to these large RTOs could not agree on critical terms, or even on whether forming one large RTO in their region was beneficial.

^{165.} FTC WHITE PAPER, supra note 11.

^{166.} When Congress granted the FERC's predecessor, the Federal Power Commission, authority over the electric grid in 1935, it reserved to the states authority over sales to bundled retail load. Under the Federal Power Act, the FERC has plenary authority over transmission in interstate commerce, but the FERC had not interpreted that authority as extending to the transmission component of bundled retail load. See New York v. FERC, 535 U.S. 1 (2002).

organized opposition unabating, the Senate came within two votes of adopting an energy bill that would have barred the FERC from implementing SMD until 2006. Although it now appears unlikely that the energy bill will be enacted, the Congressional opposition to SMD remains sufficiently high that it appears doubtful it will ever be implemented as first proposed.

2. Public Interest vs. Economic Theories of Regulation

Can a public interest theory of regulation explain the sequence and fate of the FERC's wholesale market reform initiatives? At a very high level, the answer is "yes." The wholesale market reforms proposed and enacted by the FERC all sought to increase consumer welfare by increasing competition. Order No. 888 sought to eliminate the ability of vertically integrated utilities to discriminate against competitors. Order No. 2000 sought to improve efficiency by establishing regional organizations that could manage the network effects of transmission and reduce pancaked rates.¹⁶⁹ The SMD rulemaking sought to increase market efficiency by mandating a single market design based on principles of marginal cost pricing.¹⁷⁰

At this high level, the direction of this reform movement is fully consistent with a public interest theory of regulation. However, public interest theories fail to explain much more than this. Order No. 888 required open access, but it retained an inefficient "contract path" model and average embedded cost pricing for transmission.¹⁷¹ Order No. 2000 sought to encourage RTO formation, but left compliance up to the industry and encouraged a plethora of "stakeholderdriven" market designs. The SMD proposal sought to remedy the resulting patchwork of market designs, but was stymied by political opposition.

Does an economic theory of regulation fare any better in explaining wholesale market reform? The answer is "probably not" as it relates to Order No. 888, but it is more helpful in explaining the relative success and failure of Order No. 2000 and SMD, respectively.

Consider Order No. 888 first. The impetus for Order No. 888 appears to have been California's fast-moving experiment with retail access, which was first proposed in 1994. California's action was quickly followed by similar developments in Pennsylvania, Massachusetts, and New York. Critical to the success of these retail access programs was open and nondiscriminatory transmission access, yet, at the time the California Blue Book was released, the FERC had done nothing on an industry-wide basis to require such open access. Rather, it had proceeded on a case-by-case basis under the Energy Policy Act of 1992, responding to individual complaints regarding denials of access. The

^{169.} See Joskow (2000), supra note 67, at 155–56 ("All of the credible models for creating new competitive electricity markets recognize that there must be a single network operator responsible for controlling the physical operation of a control area, coordinating generator schedules, balancing loads and resources in real time, acquiring ancillary network support services required to maintain reliability, and coordinating with neighboring control areas."); William W. Hogan, A Wholesale Pool Spot Market Must Be Administered by the Independent System Operator: Avoiding the Separation Fallacy, 8 ELEC. J. at 26 (Dec. 1995).

^{170.} FTC WHITE PAPER, supra note 11.

^{171.} Joskow (2000), supra note 67, at 132.

political pressure on the FERC thus came less from organized pressure groups than it did from the states. The FERC had a desire to cooperate with these entities on retail access issues, and this cooperation was perhaps driven by some degree of "competition" with the states for "leadership" on electric restructuring issues.

This set of facts certainly does not fit neatly into an economic theory of deregulation, i.e., declining producer rents prompting regulated firms to cease support for continued regulation. But an economic theory of regulation does help explain why industry opposition to Order No. 888 was so modest, with the industry focusing on the details of the initiative, and not opposing the general requirement to provide access to competing generators. At the time, wholesale sales represented only a very small portion of total utility earnings (e.g., 10%), and thus increasing wholesale competition was not likely to impose significant risks on most utilities. Moreover, the Energy Policy Act had already deprived the utilities of any long-term ability to block competitors access to their transmission lines and, hence, access to serving their wholesale requirements customers. Thus, by the time of Order No. 888, there was not much remaining in the way of wholesale "rents" left to defend and, because of that, little reason to oppose the FERC's initiative outright.

Turning to the next second two rulemakings, Order No. 2000 and SMD, an economic theory of regulation is more useful in explaining the differing fates of these two initiatives. Order No. 2000 and the SMD rulemaking differed sharply on a normative basis. Order No. 2000 placed a high value on cooperation among stakeholders, utility support for RTO development, and experimentation in market design. By contrast, SMD placed a high value on uniform compliance and efficient market design. The purpose of this article is not to debate these normative differences, but rather to consider what, if anything, explains the relative success of the former (Order No. 2000) and failure of the latter (SMD).

At the outset, however, one might question the "success" of Order No. 2000 since the FERC itself largely abandoned it. But there is no question that Order No. 2000 was a success by its own yardstick. Order No. 2000 sought to create an RTO in every region of the nation through a voluntary compliance scheme. And in response, virtually every region voluntarily proposed a RTO, including the west and southeast regions that were wary of federal authority. The fact that these RTOs were often small and oddly shaped, reflecting business alliances rather than natural geographic markets, or their market designs were often less than efficient, is less important than the fact that the FERC succeeded in its primary objective—voluntary RTO creation. This was no small task given the significance of the reform effort and its voluntary nature. SMD, by contrast, sought to remedy many of the normative flaws of Order No. 2000, but has largely failed in doing so. The rulemaking has been on life support for nearly two years due to Congressional opposition, and it is not clear whether it will ever be implemented.

On one level, the differing fortunes of these two rulemakings is surprising. Both offered few, if any, benefits to utilities. Each proposed the creation of expensive new market institutions that would control their transmission systems

312

and expose them to increased wholesale competition.¹⁷² Moreover, consumer organizations and state regulators were skeptical of both, particularly of the assertion that creating new market institutions would actually lower costs. In this regard, both rulemakings faced significant information costs because there were few quantifiable near-term benefits to offset the significant costs of creating these expensive new regional organizations.¹⁷³ It therefore would have been reasonable to conclude that with similar costs and modest support, Order No. 2000, with its voluntary compliance approach, would have been far more likely to fail than SMD with its mandatory approach.

However, the opposite result occurred. The question is why? An economic theory of regulation supplies a partial answer. The political success of Order No. 2000 was due, in large part, to its decision to establish "stakeholder processes" in each region to negotiate the transmission and market rules that would govern each region's RTO. This process encouraged consensus (horse-trading) by affected groups of utilities, wholesale customers, independent generators, and state commissions. Although full consensus was not possible, the resulting RTO proposals allocated benefits (costs) across all groups, thereby significantly diminishing opposition. Importantly, this process offered the most influential group, utilities, significant control over the resulting RTO structures, given that in the end, only the utilities, using their Section 205 rights, could propose to form an RTO.¹⁷⁴ Facilitating utility support was crucial not only to securing their voluntary compliance, but also for giving them an incentive to encourage their state commissions to support RTO development. The support of state commissions was in turn critical because many had authority to approve the transfer of operational control of a utility's transmission lines to an RTO, thus giving them a potential veto over RTO formation.¹⁷⁵ The Order No. 2000 compliance process was thus designed to, and in fact did, minimize opposition to RTO development.

By contrast, SMD was a more traditional rulemaking, making normative choices and enforcing them through mandatory compliance. Several of these choices, however, had significant adverse political effects. The treatment of congestion costs in an efficient manner under an LMP system promised to

^{172.} Order No. 2000 sought to counteract this in some respects by offering "incentive" rates for independent transmission companies. These incentive rates were designed, in part, to offset the perception by utilities at the time that transferring jurisdiction over their transmission assets from state to FERC regulation would reduce their allowed returns on equity. It is not clear whether, on balance, these incentives were viewed by utilities as leveling the playing field between state regulation and FERC regulation (the former being viewed more favorably in the late 1990s) or, alternatively, offering positive economic benefits from RTO participation. It is notable, however, that the additional incentives applicable to the divestiture of transmission assets successfully encouraged several "Transco" proposals, although several of these proposals were abandoned after the change in FERC membership in 2001 and the associated changes in FERC policy. Order No. 2000, *supra* note 10, at 31,089.

^{173.} The FERC's own study of RTO benefits was criticized for, inter alia, simply assuming that generators would increase their productive efficiency in a RTO. Compare ICF CONSULTING, ECONOMIC ASSESSMENT OF RTO POLICY (Feb. 26, 2002) with Thomas M. Lenard, FERC's Flawed Assessment of the Benefits and Costs of Regional Transmission Organizations, 15 ELEC. J. at 74 (May 2002).

^{174.} Federal Power Act, 16 U.S.C. § 824d (2000).

^{175.} New PJM Cos., 105 F.E.R.C. ¶ 61,251 (2003) (discussing the opposition by Virginia and Kentucky to permitting their utilities to join a RTO).

eliminate existing subsidies to many wholesale customers and even some utilities.¹⁷⁶ Given that support by wholesale customers for organized markets following the California meltdown was already tepid, ending their subsidies only made it more likely that they would oppose or fail to support SMD, despite the fact that wholesale customers were its prime intended beneficiary.

An even more important source of opposition came from state regulators. Unlike Order No. 2000, the SMD rulemaking sought to regulate the transmission component of bundled retail sales and state regulators, particularly in the Southeast, opposed this as an invasion of their jurisdiction.¹⁷⁷ State opposition was not particularly surprising, given the natural bureaucracy competition for power,¹⁷⁸ but it was nearly fatal to SMD due to state influence in Congress and the states' potential veto power over the transfer of operational control to an RTO. It also is true that utility opposition to SMD was more significant than utility opposition to Order No. 2000 because SMD targeted, for the first time, utilities' bundled retail sales and also provided minimal flexibility to utilities in constructing market rules for their region.

Also, SMD faced the problem that the political support for this initiative was shallow and ineffectual. Although many utilities and states in the Midwest and Northeast supported the principles espoused by SMD, most of them had already organized LMP markets or were well on their way to creating them. Consequently, they had little incentive to support SMD simply to impose those markets on other portions of the country.

In summary, Order No. 2000 may have been questionable from a normative perspective, but its structure was designed to, and successfully did, minimize opposition to RTO formation. SMD, by contrast, was laudable in many respects from a normative perspective, but failed to minimize political opposition or to attract any significant support. It is not clear whether, at this point, it is too late for the FERC to alter this dichotomy and rescue its SMD proposal.

D. The Persistence of Cross-Subsidization

One of the early conclusions of economists (Posner and Peltzman) was that regulation would tend to subsidize high cost customers by charging low-cost customers higher rates than otherwise justified. This phenomenon is peculiar because the practice neither benefits producers nor is it efficient. It is better explained from a political perspective. If the political influence of two groups is substantially the same, one would expect their rates to be similar, even if the actual cost of serving them is quite different.¹⁷⁹

^{176.} See, e.g., Pac. Gas & Elec. Co., 104 F.E.R.C. ¶ 63,029 (2003) (explaining customer opposition to congestion costs in Northern California); Transmission Congestion on the Delmarva Peninsula, 105 F.E.R.C. ¶ 63,004 (2003) (discussing customer opposition to congestion costs on the Delmarva Peninsula).

^{177.} Indeed, on the very day the SMD was issued, a coalition of state officials announced their fierce opposition to it.

^{178.} ANTHONY DOWNS, INSIDE BUREAUCRACY (Little, Brown & Co. 1967); WILLIAM A NISKANEN, Jr., BUREAUCRACY AND PUBLIC ECONOMICS (Edward Elgar Publ'g Ltd. 1994).

^{179.} Peltzman et al. (1989), *supra* note 5, at 10–11 (depicting the tendency toward cross-subsidization between high- and low-cost customers "rests on the lack of any general connection between the cost differences and the political importance of the two buyers.").

Electricity regulation did not disappoint in this regard. Both retail and wholesale customers traditionally paid average cost rates without regard to differences in the actual cost of serving them. These cost differences are both spatial and temporal. The spatial differences arise because the marginal cost of transmitting electricity from generators to load varies by distance in two respects: (i) the cost of transmission losses, as megawatts are lost simply in the act of transmitting electricity; and (ii) the cost of transmission congestion, which arises when the transmission system cannot accommodate an efficient generation dispatch.¹⁸⁰ The cost of delivering electricity also varies significantly by time of day and season.¹⁸¹ During a hot summer day, the marginal cost of producing electricity may be \$50/mWh or more, putting aside scarcity rents for the moment, but on a cool fall day it may be \$20/mWh.

Traditional regulation muted both types of cost differences. Although there were exceptions, most retail and wholesale customers paid a single average-cost rate, regardless of the time or location of their consumption.¹⁸² This allowed overall trends in regulated prices to diverge sharply from market prices: "prices tended to rise with excess capacity and to fall when capacity was short, just the opposite of how a market would work."¹⁸³

The expectation that electricity restructuring would eliminate many of these practices given that its normative foundation was to create more efficient wholesale and retail markets was unfulfilled, and the reform of these practices has been slow at best. Most retail customers continue to pay averaged rates that vary neither by time-of-day or location except for some large customers.¹⁸⁴ Most small customers do not have meters that can record hourly usage and thus, at most, their rate design could be shaped by season, rather than time of day.¹⁸⁵ The failure to reform this practice is notable given that wholesale electric markets—the foundation for retail access—cannot be expected to clear efficiently if there is little or no demand elasticity.¹⁸⁶ State commissions have also resisted charging local residents different rates depending on their location.

Even the FERC has been slow to pursue reforms in average cost pricing.

184. Karl A. McDermott & Carl R. Peterson, *Is There a Rational Path to Salvaging Competition*?, 15 ELEC. J. at 15, 18 (Mar. 2002) ("Under the majority of existing restructuring plans, the market has been stripped of its essential tool—the price mechanism—to accomplish its task.").

185. Ironically, California recognized this and proposed a more aggressive schedule (that ultimately was not followed) than most other states for installing demand meters on all customers. It should be noted, however, that there are other methods that can serve as an alternative (albeit a blunt one) to time-of-use meters, such as using customer load shapes to charge customers a different rate each hour.

186. Hamish Fraser, The Importance of an Active Demand Side in the Electricity Industry, 14 ELEC. J. at 52 (Nov. 2001).

^{180.} Without congestion, generators are dispatched in economic merit order on the basis of marginal cost (with nuclear and coal generation having the lowest marginal costs, and differing technologies of gas-fired generation having higher marginal costs). But in the presence of transmission congestion, generation must be dispatched out of economic merit order, and the net cost of doing so is called a "congestion" cost. *See* HUNT, *supra* note 64, at 175–77; Joskow (2000), *supra* note 67, at 155.

^{181.} See generally Hughes & Parece, supra note 90; T. Winters, Retail Electricity Markets Require Marginal Cost Real-Time Pricing, 14 ELEC. J. 74 (Nov. 2001).

^{182.} Joskow (2000), supra note 67, at 123.

^{183.} Id.

Order No. 888 did nothing on that score, since its primary normative focus was nondiscrimination rather than efficiency.¹⁸⁷ It did not seek to change existing pricing policy in any material way, other than require that prices charged to competitors be nondiscriminatory. Order No. 2000 also focused more heavily on allowing flexibility to stimulate voluntary RTO formation than on mandating efficient pricing rules.¹⁸⁸ SMD, by contrast, constituted a large step forward in eliminating inefficient pricing, but, as indicated, it has experienced more failure than success.

At most, the FERC has had success in instituting locational prices for generators; they are paid the clearing price at their location. It has had far less success with load or end use customers. In California, the regional system operator recently proposed an LMP system for both generators and loads consistent with the FERC's SMD rulemaking, but it was forced to abandon locational pricing for loads after vigorous protests by customers in high cost areas.¹⁸⁹ In New England, the system operator proposed LMP for both generators and loads and, not unexpectedly, high cost groups, primarily southern New England, opposed it. To appease these customers, the system operator proposed, and the FERC approved, a plan to construct new transmission. The new transmission would eliminate some congestion and, importantly, the cost of that new construction would be rolled in across all customers in New England, thereby continuing, albeit in a different form, the existing subsidy.¹⁹⁰

Reform of transmission construction pricing, the cost to connect new merchant generators to the grid, has also been slow. The FERC's traditional policy had been to roll-in the cost of all new construction into total rates on the theory that new facilities become "integrated" with the overall transmission network, and thus benefit all customers.¹⁹¹ But, with the advent of a merchant plant industry, the FERC's policy failed to send any meaningful price signal to merchant generators on where to locate plants. A plant would have no incentive (and even a disincentive, if the cost of land, permits, and fuel transportation were considered) to locate in an area that would relieve transmission congestion. It could simply locate close to fuel sources (or in a favorable location for other reasons) and impose the cost of transmission upgrades to integrate the plant into the network on all customers.¹⁹²

One would have thought that the current FERC-with its focus on the

^{187. &}quot;[W]e recognize that there may be difficulties in using a traditional contract path approach... as described by Hogan and others[,]" but "[t]o require now a dramatic overhaul of the traditional approach... could [be] severely slow, if not derail for some time, the move to open access and more competitive wholesale bulk power markets." Order No. 888, *supra* note 9, at 31,668.

^{188.} Order No. 2000, *supra* note 10, at 31,127 ("we will allow RTOs considerable flexibility to propose a congestion pricing method that is best suited to each RTO's individual circumstances."). It is true, however, that Order No. 2000 offered certain incentive rates and other pricing policies to encourage the creation of independent transmission companies and the construction of new transmission. It is beyond the scope of this article to consider whether these policies were designed to increase efficiency or, instead, primarily to serve the more expedient task of encouraging voluntary RTO participation.

^{189.} Cal. Indep. Sys. Operator, Corp., 105 F.E.R.C. ¶ 61,140 (2003).

^{190.} New England Power Pool, 103 F.E.R.C. ¶ 61,248 (2003).

^{191.} Entergy Servs., Inc. v. FERC, 319 F.3d 536, 542 (D.C. Cir. 2003).

^{192.} FTC WHITE PAPER, *supra* note 11.

efficiency prescriptions of SMD—would have eliminated this traditional practice, but the issue arose at a time when much of the merchant generation industry was on the verge of bankruptcy. Imposing millions of dollars in new construction costs on financially strapped merchant plants threatened the independent generation industry that was so critical to the FERC's wholesale market reforms. An otherwise rational and efficient reform therefore became a potential barrier to new entry, and perhaps encouraged greater market exit as well. Protecting the merchant industry during this period was, as explained above, consistent with Peltzman's hypothesis that regulation will tend toward the producer interest as prices fall.¹⁹³

The political struggle over this issue pitted organized merchant plant developers against utilities and their state commissions. The FERC responded with a compromise that would maximize its ability to achieve one of its primary policy goals—RTO formation. The FERC issued a White Paper suggesting that utilities could allocate the cost of new transmission to merchant plant developers *if* the utilities turned over control of their transmission systems to a RTO or sold their transmission assets to an independent transmission company (ITC).¹⁹⁴ The White Paper not only addressed the FERC's normative concern—that independent entities should make decisions on what transmission to build and how to allocate it—but also served as a political tool to encourage state regulators, particularly in the Southeast, to permit their utilities to join RTOs or sell their systems to ITCs.

In summary, taxation by regulation continues to be more the rule than the exception. Even when the normative basis for more efficient practices is the strongest—in congested areas or in regions where supply is short and the need for demand response is the greatest —reform has been slow, at best.

IV. CONCLUSION

One of the principal conclusions of positive theories of regulation is that information costs significantly affect the ongoing struggle between producer and consumer interests. This conclusion has normative implications as well. If information disclosure reduces the likelihood of inefficient pro-producer regulation, then it should follow that government policies increasing the availability of information will usually pay for themselves. This is particularly true in the electric industry, given the huge dollars, and hence potential resource misallocations, at stake in electricity restructuring. All else being equal, the lower the cost of information on the effects of regulation, including deregulatory initiatives, the more likely regulation of the industry will tend toward the public interest. As Noll has observed:

^{193.} This is not to suggest that there was no normative basis for the FERC continuing to roll in the cost of new transmission. The FERC's stated view was that utilities could not be trusted to allocate fairly the cost of new transmission to their competitors, merchant plants. The incentive, in the FERC's view, was to tell merchant developers that their plants would require millions in new transmission investment as a means of discouraging new entry. *Id.*

^{194.} Id. See FED. ENERGY REGULATORY COMM'N, WHITE PAPER: WHOLESALE POWER MARKET PLATFORM 6 n.7 (Apr. 28, 2003).

[T]he sophisticated version of the public interest theory implies that political leaders ought to favor simple, open decision processes and the widespread dissemination of information about market performance and the effects of regulatory rules. To do so reduces the transactions costs of regulatory policy and increases the likelihood that a constituency will acquire the necessary information about an inefficiency to trigger a political response. [This] increase[s] the demand for political action and raise[s] the price that political actors can charge for market-enhancing regulatory policies.

Along a similar vein, others have argued that the best means of improving our democracy is by increasing the information available to the public.¹⁹⁶

I would suggest that information disclosure is important not only to level the playing field between producers and consumers, but also to encouraging proconsumer regulation that is consistent with long-term consumer welfare. This is particularly important today. In the current environment, pro-consumer regulation at the state level tends to insulate customers from the tremendous upheaval in wholesale markets, and pro-consumer regulation at the federal level tends to mean capping wholesale prices or muting the effects of locational marginal cost pricing. The short-term political benefits of such policies are clear, given the significant consumer backlash against restructuring in recent years. Indeed, it can even be conceded that some of this retrenchment actually supports restructuring because it defuses political pressure to turn back the clock to traditional entry and price regulation of the generation sector.

The current state of affairs is not, however, an efficient prescription for the long run. The industry continues to teeter on the divide between competition and regulation, making it unlikely that regulation will tend toward efficient outcomes that promote consumer welfare any time soon. In the long run, the industry needs to complete the transition to competition and, in doing so, confront the very difficult political issues associated with deregulating the price of such an essential commodity. Better information can play at least a modest role in this regard. For example, severe price spikes convey information that is quite readily available to the public, and importantly, lead many to believe that deregulation has "failed" rather than providing "efficient" price signals. The harm resulting from traditional regulatory practices, which can discourage new entry, encourage it in the wrong places, or encourage too much consumption, is far more opaque. Better information on the negative impacts of regulation itself could therefore perhaps level the playing field to some degree. In the end, however, I readily concede that the benefits from better information pale in comparison to the impact of other, far more important factors. The most effective salve for electricity restructuring would be the return of low natural gas prices and capacity surpluses. After all, these are the two factors that created the economic conditions that supported the birth of electricity restructuring in the early 1990s. These factors allowed politicians to embrace deregulatory policy as a low-risk, pro-consumer initiative. In many regions, the surplus capacity has reappeared, but it may take a long time for the low natural gas prices to return.

^{195.} Noll (1988), supra note 18, at 1261.

^{196.} PAGE & SHAPIRO, *supra* note 50, at 383–98.