Deregulation: Looking Backward and Looking Forward

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We have a surfeit of deregulatory anniversaries to celebrate or deplore: it is now more than thirty years since the Federal Communications Commission (FCC) authorized substantial competition in long-distance communications,[1] more than eleven since we deregulated the airlines, and almost ten years since we did substantially the same to the railroad and trucking industries.[2] Can we, by examining this long and varied experience with deregulation, draw any conclusions about the likelihood and desirability of its continuation in the decade ahead?

In this attempt to place deregulation in historical perspective, I feel compelled to emphasize, in contradiction of the widespread

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1. Allocation of Frequencies in the Bands Above 890 Mc, 27 F.C.C. 359 (1959), *modified on reconsideration* 29 F.C.C. 825 (1960) (authorizing large users to provide their own communications services via microwave).

2. Other major milestones were the deregulation of stock exchange brokerage commissions in 1975-76, see Roberts, Phillips & Zecher, *Deregulation of Fixed Commission Rates in the Securities Industry*, in THE DEREGULATION OF THE BANKING AND SECURITIES INDUSTRIES 151 (1979); the progressive relaxation of FCC restrictions on cable television competition with over-the-air broadcasters during the 1970s, see S. BESEN, T. KRATTENMAKER, A. METZGER JR., & J. WOODBURY, MISREGULATING TELEVISION 4-20 (1984); *see also* Besen & Crandall, *The Deregulation of Cable Television*, 44 LAW & CONTEMP. PROBS. 77 (1981); the FCC's reluctant allowance of direct competition in the offer of interexchange telecommunications service on a common carrier basis. MCI Telecommunications Corp. v. FCC, 561 F.2d 365 (D.C. Cir 1977); In re Establishment of Policies and Procedures for Consideration of Application to Provide Specialized Common Carrier Services in the Domestic Point-to-Point Microwave Radio Service, 29 F.C.C. 2d 870 (1971); In re Applications of Microwave Communications, Inc., 18 F.C.C. 2d 979 (1967). *See generally* 2 A. KAHN, THE ECONOMICS OF REGULATION: PRINCIPLES AND INSTITUTIONS 129-52 (1988); G. FAULHABER, TELECOMMUNICATIONS IN TURMOIL: TECHNOLOGY AND PUBLIC POLICY (1987). *See also* text accompanying *infra* note 20.

popular impression that President Reagan deserves most of the credit—or blame—how much of it occurred between 1978 and 1980.[3]

While deregulation has dramatically transformed the transportation industries, its effect on the traditional public utilities, while substantial, can easily be exaggerated. Two years ago, in a symposium on "The Surprises of Deregulation," Robert Crandall shrewdly observed that the greatest surprise in the case of telecommunications was how little had actually occurred.[4] Customer premises equipment aside, the overwhelming majority of transactions continue to be thoroughly regulated. And AT&T, which had agreed to divest its putatively naturally monopolistic services and confine itself to competitive operations, continues nonetheless to be heavily regulated.[5]

I have been guilty of some such exaggeration myself, in speculating several years ago that we might at last be witnessing the fulfillment of Horace Gray's ancient celebration of "the passing of the public utility concept:"[6]

> Gray intended his title to be historically descriptive, and not merely hortatory. The celebration was premature. . . .
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> In contrast, the last decade has witnessed such dramatic modifications and abandonments of the traditional institution that I suggest it is now possible to talk realistically about the passing of the public utility concept. . . .
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> The institution of closely regulated, confined, franchised monopoly, which produced reasonably satisfactory results for all parties, including the public, until around 1970, has proved progressively unsuited to the drastically altered condition of the American economy since that time. I think history is on the way to proving that Horace Gray was something of a

3. Even so knowledgeable a student as Roger Noll has credited President Reagan with dismantling the Civil Aeronautics Board (CAB), merely because it happened during his term. Noll, *Regulation After Reagan*, REGULATION, Number 3, 1988, at 13. Also, most people credit Reagan with deregulating crude oil, even though it was President Carter who set the process on a definite two and a half year time schedule; his successor's contribution was to compress the remaining nine months into one immediately on taking office.

4. Crandall, *Surprises from Telephone Deregulation and the AT&T Divestiture*, 78 AM. ECON. REV., PAPERS & PROCEEDINGS 323 (1988). The same is true of electric power and local distribution of gas.

5. *See* G. FAULHABER, *supra* note 2, at 85-87.

6. Gray, *The Passing of the Public Utility Concept*, 16 J. LAND & PUB. UTIL. ECON. 8 (1940).

> prophet—a premature one (if it is not excessively redundant of me to say so), and a simplistic one, but something of a prophet nonetheless.[7]

More cautious than Gray, I hedged my predictions and prescriptions. Where deregulation had been incomplete, I observed, the reciprocal interpenetration of markets by regulated and unregulated companies required regulatory prevention of cross-subsidization and abuse of monopoly power. I also professed agnosticism about the feasibility of competition across the board in electric generation, dithered on the desirability of deregulating basic cable television service and petroleum pipelines, described my own efforts to ensure effective protection of shippers captive to the otherwise deregulated railroads, and recognized that similar exploitation was almost certainly happening in some thin airline markets. Still, considering the continuing pervasive regulation of the public utilities, I, like Gray, could justly be described as a "premature prophet" of their passing.

There is, however, also a great deal going on, almost all of it in the direction I predicted. Of especial significance, the major issues of regulatory policy these days in the public utility arena are not whether or how to return to the closed world of franchised, thoroughly regulated monopolies, but how to accommodate traditional regulation to the increasing intrusion of competition. Among the leading examples of that intrusion are:

> the growth of electric generation by non-utility enterprises—both "qualifying facilities" under the Public Utility Regulatory Policies Act (PURPA)[8] and so-called independent power producers;[9]

7. Kahn, *The Passing of the Public Utility Concept: A Reprise*, in TELECOMMUNICATIONS TODAY AND TOMORROW 3, 4, 5, 27 (E. Noam ed. 1983) (footnotes omitted) [hereinafter Kahn, *A Reprise*].

8. Pub. L. No. 95-617, 92 Stat. 3117 (1978) (codified at 16 U.S.C. § 2601 (1988)). *See generally* Joskow, *Regulatory Failure, Regulatory Reform, and Structural Change in the Electric Power Industry*, 1989 BROOKINGS PAPERS ON ECONOMIC ACTIVITY: MICROECONOMICS 124, 153-74, 184-85.

9. Non-utility generation accounts for only about four percent of total national capacity. *See* EDISON ELECTRIC INSTITUTE, 1989 CAPACITY AND GENERATION OF NON-UTILITY SOURCES OF ENERGY (1989). But it accounts for one third or more of planned additions. J. WILE, THE DEMAND FOR NEW GENERATING CAPACITY (Nat'l. Econ. Res. Assoc. 1989), provides an estimate of 30 percent of planned additions. Mason Willrich quotes a figure of 44 percent of "capacity under construction or advanced development." *The Competitive Wholesale Electric Generation Act, 1989: Hearings on Amend. 267 to S. 406 Before the*

- the deregulation of certain wholesale bulk power sales, where the Federal Energy Regulatory Commission (FERC) has satisfied itself that the transactions were at arms' length and untainted by monopoly or monopsony power;[10]

- the requirement by an increasing number of state utility commissions that local electric companies obtain their additional power requirements via competitive bids;[11]

- the decision by many states to permit electric companies to exercise discretion in pricing, within a stipulated range, in order to meet competition, forestall cogeneration, and retain or attract industry;[12]

- the proposal by FERC to permit local gas distribution companies to replace long-term commitments to buy gas from open access pipelines with arrangements to purchase transportation alone;[13]

- the total deregulation of telephone equipment, which is now highly competitive;[14] and

- the burgeoning of private communications networks, to such a point that more business phones are now linked in the

Senate Comm. on Energy and Natural Resources, 101st Cong., 2d Sess. 5-6 (1989) (statement of Mason Willrich, Pres. and CEO, PG&E Enterprises).

10. R. FITZGIBBONS, BEYOND THE FERC NOPRS: TRENDS IN ELECTRIC UTILITY REGULATION (Nat'l. Econ. Res. Assoc. 1989).

11. Fourteen commissions have done so, twelve others are considering it. Willrich, *supra* note 9, at 5.

12. R. FRAME, COMPETITIVE INDUSTRIAL RATES (Nat'l. Econ. Res. Assoc. 1987).

13. Batla, *Order 500 Joins Order 451 on the Critical List*, NATURAL GAS, Dec. 1989, at 1. In 1982, interstate pipelines owned 78 percent of the natural gas they carried; by 1987 that share had fallen to less than one-third. For the remainder, the pipelines provided the transportation as a separate service. ENERGY INFORMATION ADMIN., OFFICE OF OIL & GAS, U.S. DEP'T OF ENERGY, GROWTH IN UNBUNDLED NATURAL GAS TRANSPORTATION SERVICES: 1982-87, at ix-x (1988).

14. *See* Crandall, After the Breakup: U.S. Telecommunications in a More Competitive Era (Nov. 1989) (unpublished manuscript on file with author). *See also* Noll & Owen, *United States v. AT&T: An Interim Assessment*, in FUTURE COMPETITION IN TELECOMMUNICATIONS 172-86 (S. Bradley & J. Hausman ed. 1989).

> first instance to their own switches than to those of the local telephone company.[15]

Among such quasi-public utilities as financial service institutions and transportation, the processes of market interpenetration and unregulated pricing are even further advanced.

Despite these developments, most transactions at the core of the traditional public utilities, such as the local provision of telephone, electric and gas service, continue to be tightly regulated, and there seems little prospect or desirability of that situation changing fundamentally in the next decade. In these circumstances, my predictions and prescriptions about the future course of deregulation in the structurally competitive industries, on the one side, and the structurally monopolistic markets, on the other, will necessarily differ from one another.

There will, however, be a common theme and a consistent set of conclusions:

> The case for deregulation has been that direct regulation typically suppressed competition, or at least severely distorted it, and that competition, freed of such direct restraints, is a far preferable system of economic control. I read the recent experience as having essentially vindicated that proposition, making substantial reversal of the deregulatory trend unlikely.
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> Where competition is not feasible throughout an industry or market, as in the traditional public utilities, entry of unregulated competition can introduce distortions so severe as to make the mixed system the worst of both possible worlds. The preferable remedy is not to suppress the competition, but to make the residual regulation as consistent as possible with it. That seems to be the direction in which regulators are moving.
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> The abolition of direct economic regulation is by no means synonymous with *laissez faire*. On the contrary, it may call for government interventions no less vigorous than direct regulation itself, but fundamentally different in character and intent. The progressive realization of this fact in recent years makes

15. P. W. HUBER, THE GEODESIC NETWORK: 1987 REPORT ON COMPETITION IN THE TELEPHONE INDUSTRY 2.5-2.7 (Antitrust Division, U.S. Dep't of Justice 1987).

for a bifurcated prognosis for the 1990s: the historic trend of direct economic deregulation is unlikely to be reversed, but government will play an increasingly active role in attempting to preserve competition and remedy its imperfections. And that is what it should do.

I. The Prospects for Reregulation

One way of trying to judge whether the recent deregulatory trends are likely to continue or be reversed is to consider the root causes of these remarkable historical changes[16] and appraise the likelihood of their persistence.

Perhaps the most fundamental of these has been the rediscovery all over the world of the virtues of the free market. It was obviously no accident that many of the comprehensive governmentally-administered cartelizations overturned during the late 1970s and early 1980s were established during the Great Depression, when confidence in the market economy was at its nadir. While the present enthusiasm for market capitalism will doubtless be subject to ebbs and flows in the years ahead, it is difficult to envision an early return to centralized governmental command and control systems, of which our regimes of economic regulation were an exemplar in microcosm.

There is no sign of let up, either, in the technological explosion that made inevitable the collapse of almost all the historic regulatory barriers against competitive interpenetrations in telecommunications, and bids fair to do the same among financial institutions. It was the development of microwave that presented large users with the irresistible opportunity to escape the regulatorily-dictated overcharging of interexchange services. Similarly, the geometrically declining cost and increased versatility of switching has made possible the proliferation of privately-owned networks and privately-provided sophisticated telecommunications services; and fiber optics will probably doom the present artificial separation of cable television and information services from telephony.

A. *Vested Interests in Deregulation*

The deregulations of the last fifteen years were powerfully motivated also by changes in the configuration of the private

16. *See generally* Kahn, *The Political Feasibility of Regulatory Reform: How Did We Do It?*, in REFORMING SOCIAL REGULATION: ALTERNATIVE PUBLIC POLICY STRATEGIES 247 (1982).

interests most directly affected. The Staggers Act[17] was passed in large measure because of the growing disenchantment of the railroads with their historic regulatory bargain with government that protected them from competition but also systematically impeded them from competing effectively, forced them to maintain thousands of miles of track on which they were losing money, and limited their ability to raise their charges to customers with relatively inelastic demands. Similarly, airline deregulation owed a great deal to the unhappiness of United Airlines with the CAB's systematic denial to it of the ability to enter new markets or desert old ones. The insistence of large customers that they be released from the burdens of cross-subsidization to which they had been subjected by the FCC and state commissions was an important part of the reason for the breakup of AT&T's monopoly; in the same way, the competitive encroachments on the formerly protected markets of the electric and gas utilities came about because of the desire of large industrial customers to take advantage of emerging opportunities to make bulk purchases at bargain rates in the field and from outside suppliers with excess capacity. And one reason for the receptivity of the electric industry to competitive generation was the reluctance of many of its members to undertake construction of new baseload generating stations, because of the stunning regulatory disallowances of previously incurred construction costs to which they had been subjected in the early and mid-1980s.[18]

It is the converse of the foregoing proposition that is the more relevant for the future. There are now vested interests in deregulation itself—politically or economically powerful entities that, having now achieved freedom from regulation, will not readily surrender it. That is part of what I intended when I said that my colleagues and I at the CAB were going to get the airline eggs so scrambled that no one was ever going to be able to unscramble them. Although many of the thousands of new truckers and small bus companies

17. Staggers Rail Act of 1980, Pub. L. No. 96-448, 94 Stat. 1895 (1980) (codified as amended in scattered sections of 11, 45, and 49 U.S.C.).

18. As the foregoing account already suggests, while the deregulation movement was powerfully motivated by historical factors affecting the economy at large and economic policy generally, its explanation must be sought also in circumstances peculiar to the individual industries affected. For example, it is highly unlikely that our regulatory policies affecting the electric utilities would have been so substantially changed had that industry continued to perform as it had during the decades of the 1950s and 1960s. In contrast with telecommunications, where the most powerful motivating force was technological progress, in the energy sector the motivating force was, in important measure, technological and institutional failure. *See, e.g.*, Joskow, *supra* note 8, at 149-63; R. F. HIRSH, TECHNOLOGY AND TRANSFORMATION IN THE AMERICAN ELECTRIC UTILITY INDUSTRY (1989).

and many of the hundreds of railroad ventures that have taken over the trackage and thin routes that larger companies were unable to operate profitably, and many of the cogenerators and small-scale generators of hydro- and wind power that have eagerly entered the doors opened by deregulation have already gone bankrupt, and many more will, the survivors are not going to permit the government to retract the invitation to compete. Moreover, the previous incumbents now have a freedom to manage their own operations, configure their own service offerings and set their own prices that will be very hard to take away. Where the deregulatory process has been only partial, the companies that remain thoroughly regulated devote most of their energies to demanding "symmetry," by which they mean not a restoration of restraints on their newer competitors, but corresponding freedom for themselves. The principle applies symmetrically to deregulation and regulation: once instituted, they tend to be progressive and cumulative.[19]

These forces explain why the process can be essentially inadvertent, as it was in the case of telecommunications. No planner laid out in advance the path of decisions from Hush-a-Phone and Above 890 through Carterphone, MCI, Specialized Common Carriers, Execunet, AT&T's stonewalling response, the Modified Final Judgment concluding the ensuing antitrust litigation, and the FCC's MTS/WATS Market Structure and three Computer Inquiries. Yet each step led logically to the next, and they were all in the same direction.[20]

The same process is underway in the financial services field. Once we permitted brokerage houses to offer the equivalent of demand deposits and retail chains to provide home mortgages and credit card services, once we removed ceilings on interest rates payable by savings institutions, it was inevitable that we would loosen the previous restraints on the permissible lending and investment activities of the savings institutions and permit commercial banks to underwrite commercial paper.

19. On the tendency of regulation to spread, see, e.g., A. KAHN, *supra* note 2, at 28-32. For a study of the effects of deregulation, see Kahn, *Applications of Economics to an Imperfect World*, 69 AM. ECON. REV., PAPERS & PROCEEDINGS 1 (1979).

20. *See* text accompanying *supra* notes 1-2. *See also* Kahn, *The Future of Local Telephone Service: Technology and Public Policy*, in TOWARD THE YEAR 2000 88-90 (1987); Crandall, *supra* note 14.

B. *Distortions and Tensions of Partial Deregulation*

In the electric and gas utilities, similarly, partial deregulation has introduced a host of asymmetries and distortions, which have been and are still being resolved primarily by further liberalizations. The basic problem is that the rates charged by the utility companies, which inevitably play a central role in deciding which competitive transactions take place and which do not, contain a very large component of capital carrying charges on investments valued at embedded (i.e., at depreciated original) cost, not marginal cost. Under partial deregulation, therefore, many competitive purchase and production decisions are made on the basis of comparisons between those economically meaningless, traditionally regulated rates, on the one side, and competitive costs or prices on the other. Businesses will decide whether to generate their own electric power or construct their own communications systems by comparing the current, true economic cost to them of doing so with the regulated rates they would otherwise have to pay. Where those rates are higher than the marginal or avoided costs of the electric or telephone company itself—as they have been by wide margins in recent years, because of the presence in rate base of high-cost, excess generating capacity, or inadequately depreciated telephone plant[21]—the decisions by customers to provide the service themselves can produce inefficient results.

For the same reason, when differences in regulated rates cause large-volume buyers to shift their patronage from one electric company to another, or from a gas pipeline or distribution company to producers in the field, it need not be that the marginal costs of the new supplier are lower than the avoided costs of the former one. Often, in fact, their short-run marginal costs are identical—for example, when both suppliers are part of the same power pool. The most powerful inducement for high-volume gas customers to desert their historic pipeline and distribution company suppliers has been the billions of dollars of sunk costs embodied in the rates of their former suppliers because of commitments they had made to take or pay for very high-cost gas at a time when supplies were critically short. As a result, a large number of transactions have been entered into because of decisions distorted by regulation itself, and there is

21. *See* Rohlfs, *'Miles to Go': The Need for Additional Reforms in Capital Recovery Methods*, TELECOMMUNICATIONS IN A COMPETITIVE ENVIRONMENT 63 (Nat'l Econ. Res. Assoc. 1989). *See also* A. KAHN, *supra* note 2, at 146-50; Kahn, *The Uneasy Marriage of Regulation and Competition*, TELEMATICS, Sept. 1984, at 1, 2, 8-17.

no assurance that the supply function is distributed among competitors on the basis of their comparative efficiency.

The legal obligation of utility companies to serve on demand, which requires them to incur the costs of installing the capacity necessary to fulfill that obligation, creates a similar distortion. So long as they were monopolies, their customers had, in effect, a corresponding obligation to pay rates reflecting those sunk costs if prudently incurred. In contrast, the customers who are now free to shop around or to supply their own needs can escape that obligation. If their shift is feasible only because, while evading the costs of keeping the option available to them, they nevertheless retain the right to return to their local utilities and demand service without penalty when their economical supplies elsewhere dry up, or their own generators fail, or their own telephone circuits are busy, the shift may involve not an improvement, but a loss in economic efficiency.[22]

C. *Regulatory Adaptations*

The still emerging resolution of these distortions has had several components.

Legislatures and regulatory commissions have been giving the utility companies increased freedom to reduce prices as low as their incremental costs to meet competition. Occasionally, this freedom has extended to the point of total deregulation of some services or transactions, such as Centrex, telephone equipment on the customer's premises, and some electric bulk power sales.

Also, both regulators and the passage of time have presided over a partial writing off, settling out, accelerated recovery, and disallowance of the heavy sunk costs—the multi-billion dollar take-or-pay obligations of the gas pipelines, the long-term contractual purchase obligations of the local gas distribution companies, the

22. On the separate problem of option demand and the possibility of market failure in satisfying it, see Weisbrod, *Collective-Consumption Services of Individual-Consumption Goods*, 78 Q. J. OF ECON. 471 (1964); Kahn, *The Tyranny of Small Decisions: Market Failures, Imperfections, and the Limits of Economics*, 19 KYKLOS 23 (1966). On the possible distortion of competition consequent on the failure to impose such a charge in the telephone industry, see A. KAHN, *supra* note 2, at 238-39. For the most thorough exposition of the case for such charges, see Weisman, *Default Capacity Tariffs: Smoothing the Transitional Regulatory Asymmetries in the Telecommunications Market*, 5 YALE J. ON REG. 149 (1988). *See also* Weisman, *Competitive Markets and Carriers of Last Resort*, PUB. UTIL. FORT., July 6, 1989, at 17; Weisman, *Optimal Re-contracting, Market Risk and the Regulated Firm in Competitive Transition*, 12 RES. IN L. & ECON. 153 (1989).

inflated costs of recently constructed or abandoned electric generating plants, and inadequately depreciated telephone company plant—that have constituted the major source of discrepancy between the companies' average revenue requirements for regulatory purposes and their own incremental costs.[23]

In a few cases, regulators have partially relaxed the utility's obligation to serve customers who choose to escape their *de facto* obligation to help carry fixed costs. Regulators have also considered permitting the utility companies to impose a capacity reservation charge—the leading example of which is the gas inventory holding charge contemplated by FERC—on customers who wish to retain the option of service on demand.[24] In a few recent cases, where buyers have had access to alternative suppliers, FERC has permitted the utility's obligation to be limited explicitly to the volumes and circumstances stipulated in long-term contracts.[25]

The importance and promise of individually negotiated long-term contracts can hardly be exaggerated, both as a newly permissible form of competition and as a device for reestablishing and redefining the relationship between utility companies and individual customers in a manner compatible with competition. In the electric power industry, for example, the increasing tendency of the utility companies to acquire their supplies by long-term contract has helped to introduce competition into generation. Before the Staggers Act, such contracts for rail transport were legally unenforceable: all rail and truck carriage had to be at openly posted, uniform spot rates. As a result, electric companies that had built generating plants in the Southwest designed to burn coal from Wyoming and Montana found themselves subjected to very sharp increases in the rail rates charged them by the single railroad or pair of end-to-end carriers to which they were captive. Since 1980, in contrast, most of the coal shipped by rail has been covered by long-term contracts.

The ability, newly available under deregulation, to enter into such arrangements, adapted to the particular needs of the individual shipper and providing for rewards and penalties based on performance of the transportation function, is said to have been an essential

23. In the case of the electric companies, the discrepancy has been reduced in many areas by marginal costs moving up toward average charges as growth in demand has outpaced additions to capacity.

24. *See* Kahn, *A Reprise*, *supra* note 7, at 18-21 (tracing dissolution of this obligation in the case of the airlines and motor carriers, and even incipient efforts in the electric utilities).

25. R. FITZGIBBONS, *supra* note 10, at 11.

factor in the rapid spread of just-in-time inventory and logistical control systems, which have produced cost savings estimated in the scores of billions of dollars a year.[26]

There has been no abatement in the zeal of regulatory commissions to protect residential and small commercial customers, almost all of whom remain captive to the local utility companies, from being forced to assume the sunk costs that the competitive markets can no longer be forced to bear. To some extent, they have continued to do so by discouraging "cream-skimming" competition—for example, by competitive providers of long-distance telephone service intrastate, or by proprietors of "smart buildings," providing telecommunications services for their tenants.[27] Increasingly, however, regulators have been developing methods consistent with, rather than obstructive of, the new competition—a tendency most fully developed in the field of telecommunications.

The simplest of these new methods has been a rate freeze for basic telephone service, accompanied by stipulations that service quality not deteriorate. The freeze may consist in a simple directive or undertaking to maintain existing rates for a number of years. Alternatively, it may provide for automatic adjustment to reflect inflation or changes in taxes or interstate separations. The indexations typically incorporate an automatic downward adjustment predicated on a targeted improvement in productivity, thereby ensuring a continuation of the long-term decline of these rates in real terms.

Such freezes or "social compacts" have some obvious virtues, both political and economic. They provide direct, straightforward protection for consumers of the services that are the subject of most

26. R. DELANEY, FREIGHT TRANSPORTATION DEREGULATION, SEMINAR T9 ON ROAD TRANSPORT DEREGULATION: EXPERIENCE, EVALUATION, AND RESEARCH 6 (Arthur D. Little, Inc.).

27. At times regulatory commissions have simply prohibited the utility companies under their jurisdiction from offering special competitive rates to attract customers, particularly where (1) the competitor's marginal or avoidable costs were no lower than those of the customer's traditional supplier, and (2) the consequence of the transaction would have been merely to shift the sunk costs inflating the rates of the latter from the departing customer to the remaining ones. *See, e.g.*, In re Lukens Steel Co., No. P-810310 (Pa. Pub. Util. Comm'n, Jan. 13, 1984) (petition denied). In this case, the Pennsylvania Power and Light Co. sought to attract a large industrial customer from the Philadelphia Electric Co. with a favorable rate, even though both companies were generating their electricity from a common pool dispatching power from the lowest marginal-cost supply source. Similarly, the New York Public Service Commission dismissed the petition by some towns in Westchester County to be served by New York State Electric and Gas rather than Consolidated Edison. Interoffice Memorandum from Jean Cleary, Staff Counsel, to State of New York Public Service Commission (July 12, 1974).

intense regulatory concern. More important in the present context, they sever the link between those rates and the revenues from the more competitive services, and in this way, in principle, prevent cross-subsidization of the latter offerings by the former. By so doing, once again in principle, they make it possible to give the utility companies greater freedom to compete for the business on which they are challenged. Finally, by focusing regulation on prices rather than rates of return, and fixing the course of those prices over a period of time, these freezes or indexations mitigate the cost-plus character of traditional regulation, and therefore enhance the incentives of the companies to improve their efficiency.

These beneficent tendencies are sometimes reinforced by an explicit or implicit acceptance of a wider than usual range within which achieved rates of return are permitted to vary. Sometimes there is an accompanying provision for companies and ratepayers to share surplus profits, up to limits (before sharing) that would have seemed unacceptably high by historical standards. The consequently wider range of possible earnings, for longer periods of time, presumably provides carriers with enhanced incentives not only to minimize costs, but also to undertake risky investments and innovations that would be discouraged if the returns from successful ventures were limited to levels traditionally regarded as reasonable.[28]

Finally, the FCC now subjects AT&T's basic and non-basic interstate services to separate rate caps—ceilings on average prices (rather than on each individual one) indexed to inflation minus a productivity target. It has decided to do the same with the services

28. The accompanying divorce of basic service rates from the companies' overall costs and revenues relieves regulators to some extent of responsibility for scrutinizing the heavy expenditures the companies are making in fiberoptic transmission and digital switching, with a view to their possible disallowance. Since these outlays are typically justified only partly in terms of minimizing the costs of basic service, and in part in order to be able to offer new services the market for which is highly uncertain, regulators have naturally been concerned that subscribers interested only in the former not be burdened by the costs and greater risks properly attributable to the latter. Threatened with disallowance of some portion of these outlays from rate base, while lacking the prospect of being permitted to retain supernormal profits if the ventures prove successful, the companies may refrain from undertaking relatively risky innovations that may nevertheless be socially desirable. Freezes and indexations of basic service rates and variable rates of return tend to remove those obstacles. *See* Kahn & Shew, *Current Issues in Telecommunications Regulation: Pricing*, 4 YALE J. ON REG. 191 (1987).

of the local companies under its jurisdiction, and some states as well are now actively considering rate caps for intrastate services.[29]

These various regulatory devices tend to permit the utility companies to compete effectively for business by offering rates as low as their incremental costs, if necessary. In this way, they correct the worst competitive distortion introduced by partial deregulation, while limiting the ability of a company to recoup net revenue losses from basic service customers. They also limit the extent to which the company may compensate for reductions in competitive rates by raising rates for non-basic services.

Of course, such arrangements openly invite the companies—and, insofar as the adoption of rate caps is coupled with the opportunity for a wider range of achieved rates of return, encourage them—to introduce a finer discrimination in the prices they charge for their several services. This is only a more polite way of saying that deregulation permits a fuller exploitation of monopoly power.[30]

The counter-considerations—in my judgment compelling—are the necessity of giving the utility companies freedom to meet the

29. In re Policy and Rules Concerning Rates for Dominant Carriers, No. 87-313 (F.C.C. Supplemental Notice of Proposed Rulemaking, adopted March 8, 1990); In re Policy and Rules Concerning Rates for Dominant Carriers, No. 87-313 (F.C.C. Report and Order and Second Further Notice of Proposed Rulemaking, adopted March 16, 1989). For a description of the FCC's plan and of a similar one adopted by the California Public Utilities Commission, see Norris, *Price Caps: An Alternative Regulatory Framework for Telecommunications Carriers*, PUB. UTIL. FORT., Jan. 18, 1990, at 44. On the pioneering British "RPI minus 3" scheme, see Stelzer, *Regulating Telecommunications in Britain: A New Alternative to the U.S. Approach*, TELEMATICS, Sept., 1986, at 7.

The Florida Commission has in effect grafted a kind of rate cap on the formal scheme of variable rates of return that it accepted for Bell South, by explicitly excluding the Company from the right to share in any surplus earnings that are the consequence of increases in its average rates: "Southern Bell will not be permitted to enhance its profits through rate increases. . . . We will allow any rate increases to be netted against rate decreases." In re Petitions of Southern Bell Telephone and Telegraph Company for Rate Stabilization etc., No. 880069-TL and 870832-TL, Order No. 20162, slip. op., at 7-8 (Fla. Pub. Serv. Comm'n, Oct. 13, 1988).

These direct restraints on prices—whether in the form of freezes, indexation provisions, "social compacts," or rate caps—do not represent an abandonment of traditional rate of return regulation. They typically contemplate periodic reexamination of the results and readjustment of the formulas when and as rates of return range outside of acceptable limits. In the last analysis, therefore, they are all forms of rate of return regulation. *See, e.g.*, Noll, *Telecommunications Regulation in the 1990s*, in 1 NEW DIRECTIONS IN TELECOMMUNICATIONS POLICY 11 (P. Newburg ed. 1989). The potentially significant difference, in principle, is that these various formulas may contemplate substantially longer regulatory lags, and therefore imply a willingness on the part of both the commission and the company to accept returns fluctuating and persisting within some range wider than would be permitted under traditional regulation.

30. This is Joseph P. Gillan's objection to rate caps. Gillan, *Reforming State Regulation of Exchange Carriers*, TELEMATICS, May, 1989, at 17.

increasing competition they encounter in the provision of "non-basic" services, and their entitlement to recover prudently incurred costs. The former is grounded in considerations of both economic efficiency and of retaining whatever contribution the competitive markets may continue to make to holding down the rates for basic service. The latter requires that the companies be allowed an opportunity to recover the consequent net revenue losses elsewhere, as the market will allow. The resulting discriminations are therefore in the interest of subscribers to basic service, and they tend also to minimize the aggregate distortions in customer choices created by the need to price above marginal cost in order to recover total costs.[31]

D. *Possible Reversions to Regulation*

Each of these adaptations of regulatory policy to competition represents a further loosening of restraints, rather than a reversal of the deregulation process. Each therefore seems to support the general expectation that the trend of the last ten to fifteen years will persist. There are, however, two opposing possibilities.

The first is the far-from-negligible danger of a misguided intensification of protectionism, in the event that we either fail to cure the fundamental macroeconomic causes of our national balance of trade deficit or we "solve" the problem by falling into a recession. The public's enthusiasm for free competition varies inversely with the unemployment rate.

The second possibility lies in the microeconomy of the electric utility industry. Major sections of the country are likely to need substantial additions to generating capacity within the next several years. At present, a large portion of the increase is expected to be supplied by non-utility generators using natural gas as their fuel. It seems likely, however, that the present large natural gas supply bubble will be exhausted during the 1990s, resulting in a sharp increase in the field price. In that event, a large portion of those expected additions to non-utility generating capacity may well not materialize, and we may see the commissions and the public alike turning back toward total reliance on their local utility companies. In these circumstances, the recent vogue of regulatorily-required

31. *See* Baumol & Bradford, *Optimal Departures From Marginal Cost Pricing*, 60 AM. ECON. REV. 265 (1970).

least-cost planning[32] could well result in restoration of the traditional "regulatory compact"—the mutual commitment on the part of the companies to ensure the required expansions of capacity and of the commissions, having lent their approval, to provide reasonable assurances to the companies of recovering prudently incurred costs.[33]

II. The Merits of Continued Non-Regulation

The future course of regulation and deregulation will be determined not only by the changing configurations of private interests, prevailing political and economic philosophies and macroeconomic conditions, but also by how we collectively appraise the record so far. The difficulty is that the performance of even a single industry is multi-faceted and never susceptible to a definitive evaluation; even less is it possible to reach a simple, unequivocal verdict about the effects of deregulation on the diverse collection of industries that have been affected by it in varying ways and degrees over the last fifteen years.

Nevertheless, I believe most economists would agree on the following two broad propositions:

> *First*, wherever even quite imperfect competition is feasible, it is superior to command-and-control regulation. This proposition has a corollary: where such regulation continues to be necessary, as in major sectors of the traditional public utilities, it should, to the greatest extent possible, be designed in such a way as to be compatible with competition rather than obstructive of it; and
>
> *Second*, if competition is to work well, it requires a great variety of governmental interventions to remedy imperfections and market failures—interventions that, however validly they may be characterized as regulatory, differ fundamentally from the kind of direct economic regulation previously administered by such agencies as the CAB and ICC, and still practiced by most of the state public utility commissions.

32. Burkhart, *Least-Cost Planning: A State Survey*, PUB. UTIL. FORT., May 14, 1987, at 38.

33. On the previous dissolution of this implied "regulatory compact," see Kahn, *Competition: Past, Present, and Future--Perception versus Reality*, in UTILITIES STRATEGIC ISSUES FORUM 2, 3, 9-10 (Elec. Power Res. Inst. 1988), and Kahn, *Who Should Pay for Power Plant Duds?* Wall St. J. Aug. 15, 1985, at 26, col. 3.

To these propositions I would attach a third, somewhat less obvious one. A central part of the case for deregulation is the severe deficiencies of regulation—deficiencies of information, wisdom, and incentives, along with a strong inherent tendency to suppress competition.[34] If, however—as I will argue presently—the response to the imperfections we have observed in the performance of the deregulated industries is that a large share of the fault lies in the failure of government to perform its essential competition-supplementing functions, such as antitrust enforcement, then the case for deregulation may rest upon assumptions about the ability of the government to fulfill those supplementary responsibilities just as unrealistic as the assumptions behind the case for direct economic regulation. This last consideration could, in some situations, take us full circle, back to an acceptance of full-scale regulation as the less imperfect of the two alternatives. In most instances, I believe, it does not.

A. *Reading the Record: The Superiority of Competition*[35]

The deregulated industries are unquestionably more competitive today than they were previously. This is not to deny the significance of the increased concentration at the national level in less-than-truckload (LTL) carriage or, marginally, in airlines,[36] or to claim that the competition is sufficiently effective in all markets to have fully taken over the role previously played by governmentally-enforced price ceilings. It is to say that market concentration route-by-route has definitely declined, on average, in markets of all sizes and dimensions,[37] and that the several indicia of competitive behavior

34. *See* A. KAHN, *supra* note 2, at 1-46.

35. Not surprisingly, the record of the effects of deregulation on performance is much fuller and more susceptible to the drawing of conclusions—favorable or unfavorable—in the case of industries and markets that have been thoroughly deregulated than for the core public utilities; for this reason, the following account has relatively little to say about the latter.

36. For a discussion of the anticompetitive consequences of the same air carriers meeting one another in market after market, see Shepherd, *The Airline Industry*, in THE STRUCTURE OF AMERICAN INDUSTRY 217, 225 (W. Adams ed. 1990), echoing my own almost identical observation with respect to the chemical industry many years earlier. Kahn, *The Chemicals Industry*, in THE STRUCTURE OF AMERICAN INDUSTRY 197, 208-09 (W. Adams, ed. 1950).

37. For the changes in airlines between 1983 and 1987, see CONGRESSIONAL BUDGET OFFICE, POLICIES FOR THE DEREGULATED AIRLINE INDUSTRY 17 (1988) [hereinafter CBO REPORT] and, for 1978-83, see CIVIL AERONAUTICS BOARD, IMPLEMENTATION OF THE PROVISIONS OF THE AIRLINE DEREGULATION ACT OF 1978 14 (1984). *See also* SECRETARY'S

support the same conclusion.[38] The same is true of telecommunications, particularly in customer and central office equipment, long-distance telephony, and the provision of high-speed, high-volume transmission of data. Because of the competition unleashed by deregulation, average prices of air travel, trucking, and long-distance telephoning are down substantially, producing not only

TASK FORCE ON COMPETITION IN THE U.S. DOMESTIC AIRLINE INDUSTRY, U.S. DEP'T OF TRANSP., 1 INDUSTRY AND ROUTE STRUCTURE 3, 11-12 (1990) [hereinafter SECRETARY'S TASK FORCE REPORT]. The mutual interpenetration by the dominant carriers of their respective regional markets, which has produced that result, has occurred also in LTL trucking. *See* U.S. GENERAL ACCOUNTING OFFICE, TRUCKING REGULATION: PRICE COMPETITION AND MARKET STRUCTURE IN THE TRUCKING INDUSTRY 18 (1987).

38. On the case of the railroads, see MacDonald, *Railroad Deregulation, Innovation, and Competition: Effects of the Staggers Act on Grain Transportation*, 32 J. L. & ECON. 63, 64-65 (1989); *Hearings Before the Joint Economic Committee*, 101st Cong., 2d Sess. (Oct. 19, 1989) (testimony of Darius W. Gaskins, Jr., former chairman of the Interstate Commerce Commission) [hereinafter Gaskins Statement]. With respect to the increased inter-railroad competition in the Powder River Basin, see BUREAU OF LAND MANAGEMENT, CASE STUDY: IMPACT OF COAL TRANSPORTATION ON WESTERN COAL DEVELOPMENT AND THE FEDERAL COAL PROGRAM (1987).

Critics have laid heavy emphasis on the substantial air fare increases in late 1988 and early 1989, which have reflected the industry's increased facility in playing oligopolistic follow-the-leader. But those criticisms have clearly minimized the underlying competitive tensions—which showed up, for example, in a sharp decline in average yields in the ensuing months, practically all the way back to 1988 levels. This experience elicited universal moaning in the investment community about the consequent erosion of yields and profits. For example:

> [t]he airline industry remains a very competitive business. If Congress thinks this is not a competitive business, perhaps a brief review of some of the promotional fare activity spreading—as competitive battles heat up—in a number of regions will convince them. American, Pan Am and Eastern are battling it out in Miami; America West is entering the Hawaii free-for-all; Eastern will take on Delta in the Northeast-Florida markets and Atlanta in hopes of regaining lost market share. USAir is attempting to slow Midway's expansion plans in Philadelphia. And, it seems everyone wants a bigger piece of the West Coast Corridor market, from American (San Jose) to United (San Francisco-SFO) to Delta (Los Angeles-LAX) to USAir (LAX & SFO) to Southwest (Oakland) to Alaska Airlines (Seattle).

Derchin & Tortora, *The Airline Industry: What Happen [sic] to the Oligopoly?*, in DREXEL BURNHAM LAMBERT, Research 4 (Dec. 8, 1989).

Shortly thereafter, First Boston estimated the industry's operating profits in 1989 at $1.95 billion, or 33 percent below the $2.95 billion reported in 1988—with the entire decline occurring in the second half of the year. PAUL P. KAROS, FIRST BOSTON, EQUITY RESEARCH, INDUSTRY: AIRLINES, FLIGHTLINES: EXPECT BRUTAL FOURTH QUARTER COMPARISONS 1 (Nov. 30, 1989).

consumer savings but net welfare improvements in the billions of dollars each year.[39]

The effect of deregulation on the relationship between the structure of prices and costs has been more complicated. In general, regulators tend to equalize rates to different customers despite differences in the costs of serving them; correspondingly, competition since deregulation has apparently—despite some increases in price discrimination, to which I will return—forced prices for the several categories of service into closer conformity with their respective costs.[40] Prominent examples of this economically beneficial change have been the increased sensitivity of air fares to the effects on cost of length of trip and traffic density, and of transportation rates generally to the differences between peak and off-peak and front- and back-haul. In telephony, the prices of long-distance calling and basic residential service have likewise come into closer conformity with their respective costs.[41]

39. S. MORRISON & C. WINSTON, THE ECONOMIC EFFECTS OF AIRLINE DEREGULATION (1986); Rose, *The Incidence of Regulatory Rents in the Motor Carrier Industry*, 16 RAND J. ECON. 299 (1985). In the telephone case, see reference to the L. Perl study in Kahn & Shew, *supra* note 28, at 209. It is of course impossible to say with certainty how much of the observed decline in price can be attributed to deregulation—a consideration especially pertinent in the case of the airlines, whose average fares declined secularly under regulation as well. *See* Brenner, *Airline Deregulation—A Case Study in Public Policy Failure*, 16 TRANSP. L.J., 179, 198-99 (1988); Kahn, *Airline Deregulation—A Mixed Bag, But a Clear Success Nevertheless*, 16 TRANSP. L.J., 229, 235-36 (1988). Morrison and Winston have come closest to resolving the question by reconstructing for the post-deregulation period the Standard Industry Fare Level (SIFL) index, according to which the CAB used to set fares, and demonstrating in this way that actual fares have indeed been consistently lower, by many billions of dollars a year, than they would have been had those CAB policies continued in effect. Morrison & Winston, *The Dynamics of Airline Pricing and Competition*, 80 AM. ECON. REV., PAPERS & PROC. 189 (1990).

40. MacDonald observes that the widespread use of long-term contracts for rail carriage has been especially beneficial to large shippers; it could therefore have made possible price discriminations that were previously impermissible. His major finding, however, is that the Staggers Act deserves substantial credit for the accelerated replacement of single-car with much lower-cost multiple-car and unit-train shipments, which have required the predictability and larger volumes that large shippers have been best able to provide. The resulting breakdown of the ICC's historic policy of equalizing rates to large and small shippers and the abandonment of unprofitable routes—the previous mandatory service of which had likewise been beneficial mainly to small shippers—have therefore evidently involved a closer alignment of rates with costs and so resulted, on balance, in a diminution of discrimination. *See* MacDonald, *supra* note 38.

41. Between December 1983 and December 1989, the local telephone charges component of the Consumer Price Index increased 19.3 percent in real terms, while the average price of long-distance calling declined 44.5 percent interstate and 24.1 percent intrastate. FEDERAL-STATE JOINT BOARD, U.S. BUREAU OF LABOR STATISTICS, MONITORING REPORT CC DOCKET NO. 87-339, at 246 (1990). This has been more the indirect than the direct consequence of intensified competition: the FCC initially required local exchange companies to charge long-distance companies rates far above marginal costs for access to

Purchasers are being offered a greatly expanded range of price/service options, most strikingly in financial services, telecommunications and transportation.[42]

The removal of regulatory restrictions and the pressures of competition have yielded marked increases in productivity.[43] The failure of the airline industry to realize the huge potential economies of hub and spoke operations under regulation testifies eloquently to the inefficiency of centralized government planning and the superiority of unconstrained profit-seeking in free markets. Similarly, the freedom of both airlines and truckers to vary their effective charges from one moment and one route to another, depending on the relationship between demand and capacity, has contributed powerfully to improved use of equipment and consequent reductions in cost.

All of this has occurred with no evident sacrifice of safety.[44] And, with the glaring exception of the general decline in the quality of the air travel experience, it has on the whole resulted in improved quality as well as variety of service, just as any student of competition would have predicted.[45]

B. *Imperfections of Competition and Derelictions of Government*

There remain three glaring apparent exceptions to the beneficent consequences of deregulation—the deterioration in the quality of air travel, a sharp increase in certain kinds of price discrimination,

interstate callers. When institutional customers and interexchange carriers began to bypass the local phone companies in order to evade these inflated charges, the FCC gradually reduced them and substituted a direct charge on ultimate subscribers. *See* Kahn & Shew, *supra* note 28, at 196-97.

42. Prominent among the expanded range of service offerings in transportation have been long-term contract as well as spot rates, sharply increased intermodal carriage, and—thanks to the spread of airline hub and spoke operations—an increased variety of available destinations. SECRETARY'S TASK FORCE REPORT, *supra* note 37, at 3, 149-289 (especially the discussion at 160).

43. For the case of the railroads, see Gaskins Statement, *supra* note 38.

44. *See generally* Rose, Profitability and Product Quality: Economic Determinants of Airline Safety Performance (1989) (unpublished manuscript on file with author, publication forthcoming in J. POL. ECON.); TRANSPORTATION SAFETY IN AN AGE OF DEREGULATION (L. Moses & I. Savage ed. 1989). Statistics compiled by the Federal Highway Administration show a decline in fatal trucking accidents of about 20 percent in 1981-85, as compared with 1976-79, on a per mile basis. Letter from Edward H. Rastatter of the Regulatory Review and Planning Division to Alfred E. Kahn (Sept. 16, 1987). *See also* CAL. PUB. UTIL. COMM'N & HIGHWAY PATROL, REPORT ON TRUCK SAFETY, JOINT LEGISLATIVE REPORT AB 2678 (1987).

45. The one qualification of that prediction would have been a recognition of the strong tendency of the previous regulatory regimes to encourage an inefficient inflation of service quality. *See* text accompanying *infra* note 46.

and—reflecting a loss of the safety or stability that the previous pervasive restrictions on competition were supposed to preserve—the savings and loan fiasco.

1. *Discomfort and Congestion in Air Travel*

The first thing to observe about the increase in congestion, crowding and delay in aviation is that they reflect success, not failure. A major criticism of regulation had been that, by discouraging price competition, it had on the one side encouraged inefficient competition of a cost-inflating, quality-enhancing character,[46] and, on the other, failed to probe the price elasticity of potential demand. Deregulation has eliminated the distortion and made good the failure. The result has been deeply discounted fares—necessarily for service in fuller planes, with tighter seating and a lower ratio of ticket agents and flight attendants to passengers. It has been the enthusiastic response of travelers to this new option that has taxed the capacity of our airports and air traffic control systems, and the patience of travelers.

Neither an economist nor a government official is competent to decide whether the lower-quality service provided at a lower price is superior to the higher price/quality option exclusively available before. It is the task of an efficiently-functioning market to offer customers the choice, to the extent it is feasible to do so. The inefficiency of regulatory cartelization, corrected by deregulation, was that it suppressed the former option.

To some extent, unregulated competition has had the equally deplorable opposite effect: travelers who pay full fare suffer along with the ones who buy the discount tickets from long lines, uncomfortable seating and delays. This spillover effect might suggest there is no basis for concluding that there has been a net welfare improvement.

There are several reasons for rejecting that implication. First, the superior service option has not disappeared: the airlines compete strenuously for the patronage of the regular full-fare-paying customers, with frequent flyer credits, upgrades, separate lines, and, where feasible, separate business class service.

Second, to the extent that it is not feasible to provide full-fare-paying passengers a fully differentiated service—wider seating than

46. For a broad exposition of this proposition across various industries, see A. KAHN, *supra* note 2, at 10, 189 (trucking), 206-20 (securities brokerage and airlines).

their discount-fare-paying fellow travelers, for example—it is a general principle, and on balance a beneficent one, that in a market economy the majority of dollar votes rules, at the necessary expense of minority preferences, when the two cannot be reconciled.[47]

Finally, the general increase in congestion and the failure of the market to offer delay-free travel to customers willing to pay for it are, above all, a consequence of severe derelictions on the part of government. During my tenure as Chairman of the Civil Aeronautics Board, I pointed out that it was the responsibility of government to respond to the increased demands generated by the competitive forces we were unleashing, by expanding airport and air traffic control capacity, and by pricing access to those scarce facilities rationally.[48]

2. *Intensification of Price Discrimination*

Most of the history of economic regulation can be written around the phenomenon of price discrimination. Discriminations by the railroads inspired our first major venture in regulation. Regulators, hostile to even cost-justified price differentiations, have frequently required discrimination, in the interest of "equity." On the other hand, regulators have long recognized the possible economic benefits of discrimination in the presence of economies of scale and scope, and of overall revenue constraints defined in terms of historic or embedded costs.[49]

47. *See* Kahn & Shew, *supra* note 28, at 229-32 (discussing "collective consumption decisions").

48. *See, e.g.*, Address by Alfred E. Kahn, Federal Aviation Administration Consultative Planning Conference (Mar. 22, 1978). *See also* Levine, *Landing Fees and the Airport Congestion Problem*, 12 J. L. & Econ. 63, 79-108 (1969).

The Massachusetts Port Authority (Massport) in 1988 shifted the basis for landing fees at Boston's Logan Airport from weight of aircraft to the number of operations. The Department of Transportation (DOT) ordered Massport to withdraw those altered charges on the ground that they were discriminatory, because, among other reasons, they entailed higher charges per passenger on smaller than on larger planes. What DOT failed abysmally to understand was that it was the previous charges that were discriminatory: the change to which it objected was fully justified by differences in the respective marginal costs of serving the two classes of customers. On the other hand, the new fee schedules' failure to differentiate peak and off-peak landings was admittedly an imperfection, which Massport had promised to remedy.

49. Observe, for example, the unrestricted pricing freedom conferred on the railroads by the Staggers Act, within the limits of 180 percent of average variable costs and overall revenue adequacy. 49 U.S.C. § 1701a (d)(2). *See also* T. KEELER, RAILROADS, FREIGHT AND PUBLIC POLICY 98-101 (1983).

Even ardent deregulators have understood that unregulated price competition in the public utility industries would probably be highly selective and localized, with its benefits available only to some well-situated customers, because of the ubiquity of the monopoly power that counselled regulation in the first place. Many of us have been surprised, however, to find discrimination increasing also with the deregulation of industries that we thought were potentially structurally competitive. Borenstein and Rose have demonstrated unequivocally that price discrimination in the airline industry has in some respects increased, substantially and significantly, as markets have become less concentrated.[50]

Manifestly, the instances of sharply increased price discrimination that deregulation has made possible in airlines and railroads are both a competitive and a monopolistic phenomenon. They reflect intense competition for the traffic most likely to be attracted by price differences among competitors. They have also promoted economic efficiency in very important ways. The ability of the railroads to price down toward incremental cost has improved the distribution of the transportation function among the competing modes; their ability to charge rates for demand-inelastic traffic incorporating wider margins above variable costs has contributed to an improvement in their financial condition, which has helped them to finance major improvements in trackage, equipment and service, without yielding excessive returns in the aggregate. The deeply discounted fares to discretionary air travelers fill seats that would otherwise remain empty and help make possible more frequent scheduling, which is particularly valuable to the full-fare travelers.

Manifestly, however, the discriminations also reflect the exercise of monopoly power no longer curbed by direct price regulation. The reasons for the return of monopoly power to the airline industry, following upon the intensified competition of the early 1980s, and the way in which it has been exercised to produce sharp increases in the unrestricted fares paid by about 10 percent of the

50. Borenstein & Rose, Competitive Price Discrimination in the U.S. Airline Industry (1989) (unpublished manuscript available at University of Michigan Institute of Public Policy Studies). Their results do not necessarily conflict with my previous observation that in other respects price discrimination has been reduced significantly. Borenstein and Rose's findings relate to an increased dispersion of the fares charged different passengers on individual routes; my observation related to the structure of fares for different routes, times of day and modes of travel. On the other hand, a marked increase has occurred in discrimination in the fares carriers charge on different routes depending on the extent to which they encounter competition on them. *See* text accompanying *infra* note 51.

travelers, is by now a familiar story.[51] The increasing sophistication with which the leading carriers—particularly the ones with the most fully developed computerized reservations systems—have learned to practice what the industry euphemistically calls "yield management" has enabled them to take full advantage of that monopoly power, while also erecting possibly insurmountable barriers to entry by truly new competitors.[52]

There are three possible ways in which government might respond to this equivocal situation.

It could do nothing. We put up with a great deal of competitive imperfection in industries that we would not think of regulating. It is by no means clear that unrestricted fares exceed the stand-alone costs of serving the minority of passengers who pay them, or that the discrimination to which those travelers are subject is not compensated for by frequent flyer credits[53] and the improved convenience of scheduling that the high fares help make possible. The airline industry is far more competitive than it was; the benefits of that competition have been widely distributed; and the industry is evidently not earning monopoly profits. In these circumstances, it would not be ridiculous to conclude that no remedy was required.

Second, however, the government clearly has neglected responsibilities of which it was never the intention of deregulation to relieve it. These include vigilant policing of safety practices, the provision of the requisite airport and air traffic control capacity[54] and pricing access to them rationally, and vigorous enforcement of the antitrust laws, along with other policies designed to remove

51. *See, e.g., Hearings Before the Subcommittee on Aviation of the Senate Committee on Commerce, Science, and Transportation*, 101st Cong., 1st Sess. 6-61, 131-41 (1989) (statement of Kenneth M. Mead, Director, Transportation Issues, Resources, Community and Economic Development Division, U.S. General Accounting Office) [hereinafter Mead Statement]; CBO REPORT, *supra* note 37, at 23-36; SECRETARY'S TASK FORCE ON COMPETITION IN THE U.S. DOMESTIC AIRLINE INDUSTRY, U.S. DEP'T OF TRANSP., 1 PRICING 3-4 (1990); Borenstein, *Hubs and High Fares: Airport Dominance and Market Power in the U.S. Airline Industry*, 20 RAND J. ECON. 344 (1989); Levine, *Airline Competition in Deregulated Markets: Theory, Firm Strategy, and Public Policy*, 4 YALE J. ON REG. 393 (1987).

52. For these complicated reasons, Shepherd is both correct and at best telling only part of the story when, under the heading of "price discrimination," he concludes that "airline pricing behavior has virtually ceased to be a competitive weapon and has become instead a complex process by which an airline tries to maximize the revenue it extracts from its customers." Shepherd, *supra* note 36, at 232.

53. On the especial attractiveness of these credits as a device for retaining the patronage of the full-fare-paying passenger, see Levine, *supra* note 51, at 452-54.

54. An alternative clearly worth considering would be to permit private entrepreneurs to fulfill this function in whole or in part. A leading proponent of privatization is Robert W. Poole, Jr., of the Reason Foundation. *See* Poole, *Toward Safer Skies*, in INSTEAD OF REGULATION (R. Poole ed. 1982).

barriers to competition. Prominent among such supplementary policies would be expansion of airport capacity sufficient to keep open opportunities for competitive challenges to hub-dominating carriers and dissolution of preferential arrangements between those carriers and their hub airports.[55] The bill recently introduced by Senators Danforth and McCain is a long overdue initiative along the latter lines.[56]

Finally, however, it is not possible in principle to reject the reimposition of price ceilings to protect travelers subject to monopolistic exploitation, where restoration of more effective competition proves to be infeasible.

My own endorsement of the second approach and reluctance to embark upon the third—a position with which most economists would probably agree—is heavily influenced by the lesson of history that, once introduced, direct (as contrasted with competition-supplementing) regulation has both a logical and almost irresistible tendency to spread. Price ceilings would be of little value if they were not accompanied by the introduction of floors under quality of service. It takes little imagination to see where that logic might lead—to prohibitions of reductions in the frequency of scheduling and in the frequency with which full-fare paying customers are upgraded to first class; stipulations about the minimum quality of meals; maximum charges for head sets; and maximum length of lines at the ticket counter. These examples are not fanciful: all but one of them were adopted under regulation, in mirror image, to prevent competitive evasions of governmentally-set price floors.

3. *The Savings and Loan Fiasco*

The flood of savings and loan bank failures and the consequent multi-hundred-billion-dollar cost to the Federal Government dramatically underscores the second of the three propositions with which I introduced this appraisal of the record—namely, that economic deregulation cannot mean firing the police force. It also, however, inescapably raises the question implicit in the third one: may not

55. *See* Mead Statement, *supra* note 51, at 4-5; SECRETARY'S TASK FORCE ON COMPETITION IN THE U.S. DOMESTIC AIRLINE INDUSTRY, U.S. DEP'T OF TRANSP., AIRPORTS, AIR TRAFFIC CONTROL AND RELATED CONCERNS (IMPACT ON ENTRY), ch. 3 (1990).

56. S. 1741, 101st Cong., 1st Sess. (1989). The bill, entitled "A Bill to Amend the Federal Aviation Act of 1958 to Increase Competition Among Commercial Air Carriers at the Nation's Major Airports and for Other Purposes," was introduced by Senators McCain, Danforth and Bradley on October 6, 1989.

deregulation in some circumstances put on police forces burdens heavier than they can realistically be expected to bear?

In retrospect, the causes of the massive failures are clear. They were the consequence of our having removed the regulatory ceilings on interest rates payable to depositors, which in turn necessitated a relaxation of the restrictions on the kinds of lending and investment activities in which those institutions were permitted to engage. What we evidently failed to recognize was that removal of these restrictions, while retaining Federal deposit insurance, openly invited the more speculative if not reckless lending and outright fraud that, along with a good deal of bad luck, produced the present debacle. So long as the government guaranteed their deposits, institutions whose assets may have been worth far less than their liabilities could nevertheless continue to attract deposits by offering higher interest rates, and could engage in additional risky investments—as well as continued peculation. If those ventures proved successful, the owners could not only remain in business but could make large profits; if they failed, it would be the Federal Savings and Loan Deposit Insurance Corporation that would be left holding the bag—as indeed it was.[57]

In short, deregulation, particularly in the presence of Federal deposit insurance, enormously increased the necessity for vigilant bank examination, enforcement of capital requirements sufficient to provide a cushion against losses, varying deposit insurance premiums with the riskiness of the lending and investing activities of the insured institutions, and a readiness to close down S&Ls that were effectively insolvent.

C. *The Future Direction: Coming Full Circle?*

This kind of defense of the deregulation record—"It wasn't my fault, the trouble is you other people didn't do your job"—is a trifle glib. It contains more than a trace of justifying the abandonment of direct regulation, because of its severe imperfections, in terms that implicitly demand perfection of performance by such agencies as the Department of Transportation, the Savings and Loan Bank Board

57. *See* Andrews, *Is There Any Way Out of the Deposit Insurance Crisis?*, INSTITUTIONAL INVESTOR, Sept. 1988, at 86; Bush, *Former FHLBB Regulators Offer Solutions to the Current FSLIC Crisis*, SAVINGS INSTITUTIONS, Oct. 1988, at 81; O'Driscoll, *Bank Failures: The Deposit Insurance Connection*, CONTEMP. POL'Y ISSUES, Apr. 1988, at 1. O'Driscoll would disagree with this diagnosis only to the extent it assigns blame to the removal of restrictions on the asset side; he contends that diversification alone would have reduced risk.

and Congress—higher levels of prescience, conscientiousness, information, incorruptibility or simple effectiveness than can reasonably be expected.

To some extent, similarly, thrusting upon the antitrust authorities both blame for some of the monopolistic consequences of airline deregulation and responsibility for their future remedy implicitly expects more of competition-preserving policies than they can deliver. It is possible to identify fewer than a handful of mergers and code-sharing (i.e., traffic-interchange) agreements that probably should not have been permitted on antitrust grounds; most of the mergers that have reconcentrated the industry were more a reflection of the economies of networking and the inability of smaller competitors to survive in open competition than they were an independent cause of its attenuation. Again, the greatest disadvantage borne today by airlines dependent on the computerized reservations systems of their major rivals is apparently the high booking fees they have to pay; but these raise the inescapable consideration that the high profits of the system owners may be a reasonable reward for an important innovation; and the possible divestiture cure has never, to my knowledge, confronted the possible sacrifice of economies of integration. Yet again, frequent flyer credits augment the monopoly power of the larger carriers, and particularly the ones dominating the hubs used by business travelers; but it would be difficult to attack them directly, because they are a form of price competition. Moreover, the logical remedy of subjecting them to income tax when the purchases that generated them were treated as deductible business expenses would apparently be an administrative nightmare. Finally, an attack on predatory pricing would involve all-too-familiar difficulties of distinguishing unacceptable price discriminations from legitimate competitive responses and welfare-enhancing exploitations of the economies of scale and scope.[58]

58. These reservations about the likely efficacy of antitrust should not be construed as in any way diluting my firm advocacy of vigorous competition-preserving and enhancing policies, in preference to reregulation.

On the desirability of a forthright attack on practices that might be regarded as predatory, for example, I am among the minority of American economists who feel that our profession and the courts have gone much too far in the direction of minimizing the likelihood of predation and the threat to competition it may pose. See, for example, the decision by the CAB, under my Chairmanship, to limit the permissible competitive response of the International Air Transport Association carriers to the intensified competition on trans-Atlantic routes of the charters and Freddie Laker—an effort ultimately overturned by President Carter; my warning of the dangers (which have in fact materialized) of a successful price response of the incumbent carriers to the prospective entry of World and Capitol into the transcontinental market, in Kahn, *Deregulatory Schizophrenia*, 75 CALIF. L.

Competition can in some circumstances make unrealistic demands on consumers as well—assuming a greater ability on their part to make complex choices, on pain of suffering penalties to which they had not previously been subjected, than they either have or are willing to take the trouble to acquire. A poignant illustration of the resulting dilemma has been provided in recent years by providers of alternate telephone operator services, which have entered into arrangements with non-telephone-company owners of public telephones, hotels, and other such institutions serving transient customers, under which, in exchange for commissions to the owners, they receive the right to provide operator services and charge what they please. The problems arise because the transient caller is an often unwitting captive to such arrangements between the other two parties. The competitive solution would be to permit this kind of free entry, while requiring comprehensive disclosure of the system of charges and, probably also, that callers be offered the opportunity to be transferred without charge to the long distance carrier of their own choice. Conceivably, however, the burden on consumers of digesting such information and choosing may outweigh the benefits of competition; one is reminded of Oscar Wilde's analogous observation: "The trouble with Socialism is that it uses up too many evenings."

Conclusion

I can take solace from the equivocal nature of these observations in the fact that I have been consistent in my equivocation. The beginning of wisdom in the devising of regulatory and deregulatory policies must be, as I put it in celebrating the "passing of the public utility concept,"

> a skepticism of the universal efficiency of both the unregulated market, on the one side, and of government enterprise on the other, sufficient to make it impossible for me simply to abandon the regulatory tool. Competition and regulation are both highly imperfect institutions. So is antitrust. It should not

REV., 1059, 1060-68 (1987); *see also* Kahn, The Macroeconomic Consequences of Sensible Microeconomic Policies, The First Distinguished Lecture on Economics in Government, Annual Meeting of the American Economic Association and Society of Government Economists 11-15 (Nat. Econ. Res. Assoc. 1985).

> be surprising, therefore, that there is no single choice between them equally valid for all times and places. . . .[59]

The experience of the last decade or so justifies a somewhat less fatuous conclusion. I believe it has confirmed our historic presumption in favor of competitive markets: against the deregulatory fiasco of the S&Ls must be weighed the regulatory fiascos of nuclear power plant construction and the shortages and extreme distortions of natural gas markets during this same decade. Our recent experience demonstrates also that free markets may demand governmental interventions just as pervasive and quite possibly more imaginative than direct regulation; but its lesson is that those interventions should to the greatest extent possible preserve, supplement, and enhance competition, rather than suppress it. Finally, to the extent direct economic regulation continues to be required, it is preferable that it be of a kind compatible with competition, rather than obstructive of it.

In short, the lesson I take from recent history is that the evolution of regulatory policy will never come to an end. The path it takes—and we should make every effort to see that it takes—however, is the path not of a full circle or pendulum, which would take us back to where we started, but of a spiral, which has

59. Kahn, *A Reprise*, *supra* note 7, at 26. For a recent, persuasive exposition of the ubiquity of market failure—as well as regulatory failure—in transportation, see Kay & Thompson, Regulatory Reform in Transport in the UK: Principles and Application (Oct. 1989) (unpublished manuscript on file with Center for Business Strategy, London Business School).

It is important for me to make clear what it is that I have been consistently equivocal about. It has to do with selecting the set of institutional arrangements best suited to achieving economically optimal results, not with the propriety of economic efficiency as the primary goal of regulatory (or deregulatory) policy.

In contrast, the debate between advocates of regulation and deregulation is in very large measure about the latter, not the former issue. Opponents of deregulation will often protest—sometimes truculently, I can attest—that efficiency is not and should not be the sole or even the primary end of economic regulation. While I endorse the proposition that fairness and a more equitable distribution of income should be central goals of public policy, I also insist that proponents of such goals have every obligation to be just as rigorous in thinking about how they may best be served as the advocates of pure economic efficiency. And "best," in a world of scarcity, must mean "at minimum social cost." Restrictions on entry and price competition and distortions of the relationship between prices and marginal cost are usually irrational ways of achieving those ends, and to the extent regulation has served them in these ways, it has typically done so at excessive social cost. From this standpoint, one of the major accomplishments of deregulation has been to force us to seek more rational ways of achieving those goals. Neither privately nor governmentally-administered syndicalism or cartelization is a sensible way either to remedy the failures of unregulated market capitalism or to achieve a more humane distribution of income.

a direction. This is in a sense only an expression of a preference for seeking consistently to move in the direction of the first-best functioning of a market economy, rather than the second- or third-best world of centralized command and control.