Regulatory Concepts, Propositions, and Doctrines: Casualties and Survivors

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As a public policy instrument to deal with market power in the fixed utilities and transportation sectors, administrative commission regulation has for nearly a century been comprised of a number of well-known (if not always well-defined) concepts, propositions, and doctrines. These have been intended to make operational this special approach to social oversight of these essential industries. In the past two decades, and with a hastening pace of deregulation and reregulation, some of these traditional concepts, propositions, and doctrines have become casualties, some have survived, and some have been changed. This article attempts to identify which is which and appraises some of the implications of all this.

This inquiry began by simply listing what most would include as the main ideas and practices that have long surrounded public utility regulation (not all, of course, from the beginning). These turned out to be thirty-eight in number. They were then grouped (arguably, to be sure) into concepts, propositions, and doctrines. This resulted in a listing of fourteen as concepts, twelve as propositions, and twelve as doctrines. The task was to examine each of the items in the three groupings to judge which ones were casualties, which were survivors, and which were modifications. One should view these categories and assignments thereto as representing workable distinctions for purposes of this re-

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The traditional concept that utility investments must be "used and useful" in the production of the service in order to be included in rate base became a casualty with the widespread acceptance of construction-work-in-progress (CWIP) formulas of either the full inclusion or partial inclusion variety. The fact is that CWIP gained acceptance at a period when construction costs were particularly high and building schedules particularly long. A preferred course would have been to have continued with AFUDC and granted funds used during construction. CWIP is incompatible with the used and useful test, and the tortuous reasoning intended to show its reconciliation is a matter of record. The fact is that CWIP gained acceptance as a way to prop up utility earnings at a period when construction costs were particularly high and building schedules particularly long. The preferred course would have been to have continued with AFUDC and granted the use of funds used during construction.

### Table 1. Summary Listing of Thirty-eight Regulatory Concepts, Propositions, and Doctrines as to Their Current Status

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general rate increases on the merit rather than have them hidden in the operation of CWIP schemes. Application of the used and useful test as a follow-on to the prudent investment doctrine (discussed later) can make for a properly thorough examination of utility appropriation decisions. This is to say that clearing the hurdle of whether the plant investment was prudently incurred should not be enough—it then has to meet the subsequent test.4

Regulatory lag (a slightly more neutral term than “regulatory delay”) is an important recent casualty. The time it takes for a commission to allow (or require) an adjustment in utility rates in response to changes in the cost of doing business can, of course, be considerable. In the meantime the utility will either be undercollecting and have to be especially attentive to all possibilities for cost containment, enhanced productivity, and increased efficiency in order to maintain its earnings level or be over-collecting and enjoying super-normal returns until the regulatory commission catches up with it. For those who saw a fairness in symmetry, it was believed that the two conditions roughly netted out in the periodic swings of cost behavior; that is, occasional extra earnings could be left with the utilities because extra (uncompensated) costs were occasionally extracted from them. A counter view (one might say the purist’s view) is that no such symmetry does or should exist and that the public interest requires deliberative consideration of claimed cost increases on the upside and prompt reductions in utility tariffs in the face of known cost decreases, for example, lower tax, interest, or fuel charges.5 Regulatory lag in this latter view was seen as one of the few remaining opportunities for a structural inducement to efficiency. Moreover, if the financial plight of the utility was extreme enough, regulatory authority was always there for emergency and interim rate relief.

All this changed with the widespread introduction of mandatory shortened consideration periods and various automatic adjustment clauses—particularly fuel adjustment clauses—whereby changes in input costs are (nearly) immediately reflected in additional cost recovery.6

The venerable concept of system averaging in ratemaking has largely given way to cost causation concepts, mostly for the better. There are several reasons for the change. One is that the various social goals that in part occasioned system averaging for public utility services have now been largely achieved, for example, universal telephone service and the electrification of rural America. Another is the (apparent) societal preference for the “more business like” conduct of all affairs, which here translates into placing as many assignable costs as possible on the user that occasioned them. A third is advances in costing methodology that allow more precise (or at least more defensible) cost distinctions to be made. A fourth is changes in market structure, often with more competitive dimensions, and in the telecommunications and natural gas cases changes in corporate structure itself.7 Finally, the persistent attack by much of the current generation of academic economists on the system-averaging concept has, it seems, been a measurable factor.

The Certificate of Public Convenience and Necessity is increasingly a regulatory relic, at least in its original concept. With entry restrictions lessened, vanished, or confined to safety considerations (after the British model of the motor carrier industry) and no requirement for a showing of need, the CPCN as an establisher of demand and an allocator of resources to serve that demand is virtually gone, along with its intended function of encouraging the attainment of economies of scale. Nor should its fate be entirely decried, for the instances were widely researched and reported where certification was unfairly employed in a way that resulted in fewer and less diverse service offerings, protection for existing carriers, and higher rates than would have otherwise prevailed. Some certification cases do still arise on the extension of natural gas pipelines into new service areas and the creation of new telecommunications companies.8 Mostly, however, we now have virtual free entry in the transportation sectors with respect to routes and rates, non-utility utilities of the cogenerator and independent power producer variety in the case of the electrics; and smart buildings and resellers in the case of the telecommunications sector.

Survivors

If the above recitation is a fair description of the casualties in concepts, what about the survivors? There are at least three. One is the matter of cost-based and value-based ratemaking. There have, however, been shifts in emphasis in the use of these methods within the utility sectors and also changes from one method to the other. The current preoccupation with creating incentive and developmental rates for business customers together with lifeline rates for certain residential customers has introduced so much price discrimination into electricity tariffs that much of the traditional cost-of-service pricing in this sector has been lost.9 Similarly with deep discount pricing in the natural gas and transportation sectors.

In the telecommunications and water utility sectors the move is in the other direction. Cost-of-service studies, previously nearly unheard of in telephone regulation, are now being performed, and the distinc-
tions between core and non-core markets and basic and enhanced services have required a greater concern for costs and costing methods. If we believe traditional economic theory, competitiveness in any market should have the result of driving prices toward a cost-based equilibrium. Rate reform in the water field, while lagging all other utility sectors, is in the direction of cost-based ratemaking.\(^{16}\)

A second surviving concept is that of \textit{cost disallowance}, an essential authority if regulation is to combat the criticism of being a "cost plus" arrangement. A long history of practice and court decisions has affirmed that while managerial good faith is presumed in the incurring of necessary expenses in the conduct of the business, commissions can disallow company expenditures that are an "abuse of discretion" by being "extravagant" or "improvident."\(^{11}\) Commissions now fairly stringently consider allowable cost issues, some old (such as, advertising, charitable contributions, and rate case expenses) and some relatively new (for example, transactions with affiliated companies, wage settlements and compensation packages, and functional depreciation).

In recent times commissions have disallowed coal purchases by electric utilities from their own mines (and natural gas purchases from subsidiaries) when spot or contract prices would have been lower from non-affiliated sources. They have disallowed certain claimed costs that have appeared as excesses in the operation of fuel adjustment clauses. During the last recessionary period they occasionally disallowed the amount in labor contract settlements that was above what they considered appropriate. In telecommunications they worry about payments of the Bell Operating Companies to the Regional Holding Companies and their service corporations.\(^{12}\) In sum, commissions probably are more attentive now to reviewing allowable cost than they were at an earlier time of declining unit costs. Disallowance provides one of the few "levers" left for countering periods of rising input prices, diminished scale economies, and vanishing productivity and efficiency improvements. It also goes some distance in restoring public confidence in the institution of commission regulation of utilities.

The idea of the \textit{captive customer} is a third surviving concept, though all in all there likely is less of the phenomenon than before. The classic case of the captive customer was the factory or granary or mine at the end of a railroad spur facing freight rates chosen by the carrier and with no substitute service. Counterpart situations for certain natural gas users come quickly to mind, and in the water sector, drilling one's own well is at least theoretically an alternative to captive status on the utility's water lines.\(^{13}\)

Widely recognized changes have come about. Long distance truckload motor freight carriage often substitutes for rail carriage; autos and airplanes became alternatives to intercity bus service in the transportation sector. In the fixed utility sector the big customers can have their own microwave systems for telecommunications, their own power from cogeneration activities, and their own natural gas supplies if they can devise an appropriate deal with a gas producer, transporter, or local distribution company. From these latitudes flow the problems of bypass of the networks and stranded investment. Still, the captive customer concept remains a major concern for residential and small business users in all sectors, for core (versus non-core) services in the gas and electric sectors, and for basic (versus enhanced) services in the telecommunications field.

\textit{Modifications}

Casualties and survivors having been labeled, turn now to modifications in concepts. In this group are those that have been altered enough that they cannot be called survivors, but not enough to have become casualties. Seven are listed. The first is the classical concept of \textit{natural monopoly} and attendant economies of scale. In general the evidence seems to be on the side of those who argue that virtually all natural monopolies are temporary in one degree or another. Kahn's rhetorical inquiry, "If monopoly is so 'natural', how come everyone wants to get into these fields?" is an apt one.

There has, of course, long been agreement among economists that with the possible exception of railroads and pipelines the transportation sectors (surface and air) never really exhibited natural monopoly characteristics. We came to doubt whether economies of scale were present in any significant way as public policy considered merger and acquisition activity in the motor carrier, bus, airline, and the railroad sectors. In the power field there is evidence that generating plants (perhaps especially nuclear ones) should be smaller rather than larger. Some argue that economies of scale in the transmission phase of electric power have now largely been exhausted, though most continue to see the transmission grid itself as a natural monopoly. In the telephone industry there has been a dramatic paring back of what can be reasonably demonstrated to be a natural monopoly, as terminal equipment and outside wiring were dismissed from such a category and numerous service offerings were lumped into the "non-core" category. Still, it is fair to say that facilities like the local loop in telephone, LDC gas lines, water mains, and electric bulk load transmission lines, comprise enough of the natural monopoly concept to claim that it remains with us.
The pillar of the historic test year has been undermined by the decade of rising prices. The relative surety of embedded, accounting, book costs that made up the historic test year has been exchanged for the presumed appropriateness of estimated, trended, rolling costs that comprise the future test year. Taken together with the increasing acceptance of marginal cost calculations (at least in the electric and gas sectors), the historical test year concept has been substantially modified in its application. One wonders, of course, if a sustained period of price level stability or downturn in prices might cause the parties to “switch sides” on this, resulting in a possible revival of the concept.14

Yardstick regulation was a fixture of the public/private power argument for decades. As a concept it was typically applied in a fashion intended to keep a downward pressure on private power rates measured against those for publicly produced power. For their part, investor-owned utility management historically argued the noncomparability of cost between the privates and the publics. In recent times economic analysis has become better equipped to make the comparisons, incentive and power plant performance measures have improved, and the stridency of the public power “versus” private power debates has subsided in the face of joint ventures among the parties and a stable equilibrium in the ownership pattern in the industry. Moreover, the usefulness of making the invidious comparison in the other direction is now recognized where the public power entity appears to be inefficient and a high cost producer.

The concept of appointment (rather than election) of public utility commissioners at the state level has been notably modified. Even where governors make commission appointments the process has been elaborated to constrain that power in various ways.15 Also, public pressure to replace the appointment of commissioners with direct election of them has markedly increased in the past dozen years. The earlier trend away from election of commissioners in those states where the practice remained has been halted under the themes of “accountability” and “responsiveness” and through the persistence of organized interest groups. Governors have countered with opening up the appointment process (as mentioned) and by increasing the number of commissioners.

Interim rate relief is a fourth concept that has undergone modification. Originally intended to provide needed revenues to a utility experiencing an abrupt and unplanned shortfall of some legitimate kind, virtually all PSCs have always had such authority. The advent of fuel adjustment clauses (and other automatic adjustment clauses) in company tariffs, use of future test years, and mandated limited deliberation periods for rate cases has largely obviated the invoking of interim rate relief in recent times. Its application is now relatively uncommon, though the authority remains.

The traditional dominance of average costs in public utility costing and pricing has steadily yielded ground to marginal cost concepts and is included here as a fifth modification. Embedded, historical, book, accounting costs—all average cost notions—are under sustained pressure from incremental, forward looking, trended costs—all marginal cost notions—as preferred ways of calculating for ratemaking purposes. In use in Europe in electricity pricing for a quarter century (and of course nearly unassailable in academic circles) marginal costs came particularly to the attention of public policy in the United States with the debate and passage of a national energy act in the course of the last half of the 1970s.16 Gaining some considerable acceptance in electricity and natural gas pricing, marginal costs have yet to break through in any substantial way in telecommunications pricing.17 One suspects this has more to do with reluctance to disturb the presumed existing subsidy patterns than with the well-known difficulties in the marginal cost methodology. It may be that courts and the companies will increasingly look to marginal analysis in the face of shifting technologies and a mixed market of competition within a regulatory framework. Regulators, while not abandoning average costing, will likely allow the marginal cost approach in discussion before them, especially in the planning aspect of facilities expansion and in evaluating price discrimination issues.

The last of the six modifications are the transportation concepts of class rates, exception rates, and commodity rates. Published by the cartel-like rail and motor freight bureaus, these three types of rates comprised the governing tariffs for decades of cargo movements. Still in existence, they have evolved into negotiated contract rates in the case of rail shippers and by discounted rates in the case of truck traffic based on a percent of variable costs.18

**Propositions**

Casualties

Propositions here carry the dictionary meaning of “statements to be upheld.” The following three fall into the casualties category as no longer substantially “upheld.”

The first is the theme that a utility may not “pancake” rate cases, that is, file a second one before the commission disposes of the first.19 This proposition was destroyed by the conviction that regulatory lag was a
per se evil with "corrective" statutory changes being devised, like time limits on cases and rate increases presumptively taking effect. Except for the relatively small risk that a commission might disallow rate case expenses for successive filings devoid of merit or litigation that was merely obstructionist in motivation, there would appear now to be no disincentive to the pancaking of proposed rate increases, other than possible "bad public relations."

A second casualty has been the marked shift from taxpayer funding of public utility commissions to ratepayer support through levies on the jurisdictional regulated utilities. Some states financed their PSCs partly out of general funds and partly out of utility assessments and then gradually moved to 100 percent company funding; none has moved in the other direction. The rationale for doing so was fairly clear—a "user charge" that provided regular finances in an "off-budget" fashion with varying degrees of legislative oversight.

The downside to this development is twofold. From the public administration vantage point, the general citizenry should explicitly be made to decide how much it is willing to pay for good government oversight in the regulatory field and directly fund that activity accordingly. Utility companies are no more "users" of the PSC (let us hope) than business consumers or residential ratepayers. Secondly, direct assessments on the regulated companies (and by implication the size of the regulatory effort) works against the arms' length, not-being-beholden notions that can serve the public well in the regulator/regulatee relationship.

Finally, mention should be made of a casualty in the transportation sector. In regulating the several transport modes, the statutory language typically included the proposition that "the inherent advantage" [of each mode] should be preserved. While this enjoinment probably made some sense at the grand theoretical level, in practice it turned out to discourage (almost prohibit) efficient intermodal cooperation and coordination. One suspects that this mandated legacy of "preservation" was a major reason that the establishment of the U.S. Department of Transportation in which the transport modes were assembled but never really amalgamated has not fulfilled its organizational promise of fostering national integrated transport policy. Moreover, this proposition suffered fatally from the endemic conflict between promotion and regulation when these functions reside in the same agency.

Survivors

A fundamental proposition to the social control of utilities is the obligation to serve. Originating in English common law, the proposition endures, though some aspects of the current debate point toward a less absolute application of it than historically has been the case. Public utilities, as modern day common callings in their service territories, must provide safe and adequate service to all who request it and at nondiscriminatory prices. Present questioning of that straightforward proposition goes to whether the policy encouragement of competition of various kinds within previously exclusive service areas and the resulting uncertainty in the customer base have weakened that obligation to serve. More specifically, the utility argument can be made that a prized business customer who has "shopped around" for alternative service and left the system cannot subsequently claim that the host utility has a clear obligation to serve him if he wants to return. Consideration is being given to surcharges, new customer charges, standby capacity charges, and other penalty or real cost assessments that would alter the fixity and nature of this tenet of regulation. Utilities argue that with such a scenario, in periods of tight capacity a "best effort basis" is the most that should be required of them, while others point out that in periods of surplus capacity most (if not all) of "the problem" goes away.

From at least the Bluefield Water Works decision in 1923 (262 U.S. 679) and the Hope Natural Gas Co. decision in 1944 (320 U.S. 591) to the present, discussion of the fair rate of return for utility investments continues to include the earlier propositions of comparable earnings for comparable risk, maintaining the integrity of the investment, and attracting the necessary capital. In more recent decades these elements have tended to be grouped into a "cost of capital" standard. Such a grouping has led to considerations of appropriate capital structure, management efficiency, and inflation and attrition. But despite some weaknesses in the propositions (like the oft-mentioned circularity problem in the comparable earnings test) they endure.

Modifications

One of the most important propositions that has been modified in the past fifteen years is that full and fair evidentiary hearings be the basis for all regulatory commission actions. The primary encroachment on this proposition clearly has been the phenomenon of automatic adjustment clauses in utility tariffs, mainly since the early 1970s. The chief culprits—FACs and PGAs—had the effect of "end running" the traditional hearings process on grounds of the claimed need for eliminating regulatory delay in utility cost recovery. Just how large the escape from serious scrutiny really was is indicated by the fact that general rate increases nationally for the years 1974 to 1977 totalled $13
billions, while revenue increases resulting from the operation of fuel adjustment clauses (electric and gas) summed to $36 billion for the same period. To be fair it must be acknowledged that in the last half dozen years commissions have generally tightened up the worst features of FACs by strengthening their design, improving monitorship of their operation, requiring periodic reviews, or (better still) doing away with them.

On another front, the search for innovative administrative procedures intended to reduce the cumbersomeness of hearings and to make the process more efficient without undue loss to participation goes on. Approaches like stipulations, negotiated settlements, and other conflict resolution schemes are worth pursuing but can be at variance with this proposition, at least in its conventional form.

A proposition that can be placed in the modification category is that the circle should be widely drawn delineating what should be included in "management prerogatives." At an earlier time, public service commissions, either by inclination or inertia, tended to ascribe to management prerogatives a relatively large domain. Those PSCs that held a non-intrusive view of what regulation should be saw their roles as limited generally to valuing the overall rate base, determining the aggregate operating costs, and picking a rate of return somewhere within the zone of reasonableness. Now, though there are differences in degree, most PSCs are fairly activistic in philosophy and assertive in their oversight. Pricing, purchasing, capacity planning, operating efficiency—all are now "this side" of the management prerogatives arena. In short, the circle is now drawn much more narrowly, and one must worry instead about whether ideas like commission preapproval of utility investment might coopt existing or successive commissions into losing their objectivity on this important aspect of their oversight role.

Several of the more important propositions that are being modified today (though well short of being labeled casualties) fall under the rubric of the regulatory bargain between utilities and utility commissions. A vague but important term, the nature of that "bargain" is comprised of at least three elements that have been changed. One is that territorial exclusivity has been altered where certain kinds of power transfers are encouraged or insisted upon, cogenerators and independent power producers are allowed, and auctions replace tariff construction. In natural gas, public policy that increases the latitudes of big customers and LDCs in securing and moving their gas supplies has a similar effect. And in telecommunications, divestiture and deregulation have eroded the traditional fixity of the service area and the franchise to serve.

A second element is the proposition that utility investments entered into with some good faith would almost surely be allowed to be recouped and earned upon by the host commission. This expectation was largely correct historically in that in the electric sector, for example, there were only nine prudence cases at state commissions over the thirty-year period to 1973. For the 1974-1983 period some forty-two cases made substantial use of the prudence test. The occasions for this upsurge were construction cost overruns, plant abandonment, and surplus capacity. Commission decisions on these matters have ranged from full disallowance to full recovery, but more often embody compromises like partial recovery in differing proportions and over various periods. In all events, uncertainty has been heightened from the point of view of investors.

Third, and relatedly, it is increasingly claimed by the utilities that the new competitiveness and the phenomenon of "regulatory risk" together have adversely affected the balance between risk and returns to risk. The belief is that allowed rates of return have not kept pace with the increased levels of risk faced by the regulated companies. Commission-authorized increases in the return on equity and rate base in recent years and investors' reactions to the healthy financial state of the utility industries would seem to make that contention at least arguable. However this may be, it is crucial for regulation to make sure that the equating of rewards with risks is attended to when rulings allow (and indeed prescribe) distinctions between core and non-core customers and between basic and enhanced services. Assessments must be made about the new levels of risk (up or down) accompanying the capital devoted to these separate activities.

The venerable proposition that utility tariffs should be made up of rates that decline with volume of usage has been notably modified over the last ten years. Here a moving force was PURPA and the times in which it arose. As will be recalled, the stated goals of this portion of the National Energy Act were (a) conservation of energy supplied by utilities, (b) optimally efficient use of fuel and facilities, and (c) equitable rates to consumers. All of these purposes were thought to be better served by flattening (if not fully abandoning) the declining block rate structure, and utilities and commissions generally accommodated to this theme. Advances in economic analysis and new-found attention to rate design by technicians and academics could also be said to have contributed to the change, as it was discovered (even without the prodding of PURPA) that the conventional steepness of the early blocks probably did not accurately reflect the associated costs.

A final modification in propositions involves the "revolving door" is-
issue in regulatory agency personnel. While a perplexing issue of long standing, the public clearly expects some assurance that regulatory officials neither come to their positions representing the special interest of some private participant in the process nor conduct themselves in office with an eye toward a subsequent career with the regulated companies. Periodically since 1960, heightened attention has been given to the matter by special study committees, academics, Congress and state legislatures. Presidential Orders on a code of conduct have been issued, the Ethics in Government Act of 1978 was passed (placing time restrictions on exiting commissioners and certain senior staff personnel before they may work for a public utility), and nearly half the states have adopted restrictions of one kind or another to deal with the problem. Such decrees are helpful, but as elsewhere in public service, the first line of defense against the identified dangers and abuses is in the selection process itself. In the vernacular of the day, at regulatory commissions “Integrity is Job One.”

The Doctrines

As distinct from the words “concept” and “proposition,” the word “doctrine” connotes something more fundamental, more lasting. Tenet and creed are among the dictionary definitions that apply. As mentioned at the outset, the tally here differs markedly from the prior two. The number of casualties is small (one); the number of survivors large (seven); and the number of modifications modest (four). This is taken to be a good sign.

Casualties

The “clear bright line” that was hoped to separate the dual regulatory jurisdiction attendant to our federalist system has been blurred beyond recognition. Invoking the Commerce Clause by activist federal commissions and expansionistic courts has markedly altered whatever “balance” there might have been in the simpler times when what was interstate activity was federal and what was intrastate was state. Other contributing forces toward the erosion of traditional state regulatory authority to federal importantly include changes in technology, changes in utility company organization and operation, changes in market structures themselves, and the quest for “standardization.” This arrogation of authority in the regulated sectors cannot be thought of as episodic and characterized by ebbs and flows: from the vantage point of the states it has been mostly ebbs and very few flows. Fairness requires, of course, that this tilt in regulatory jurisdiction be viewed against the backdrop of what has been happening in federal-state relations generally. Seen this way, the answer to whether the pace of centralization in the public utility field is faster or slower than elsewhere in the system is, “About the same.” The consequences, however, may not be. The current state of jurisdictional affairs should be decried—not from a narrow provincialism or misplaced nostalgia but from the standpoint of good public policy.

Survivors

Fortunately, the public interest theory of regulation has survived. It has done so despite attacks on the doctrine itself, occasional lapses in the behavior of keepers of the public trust, and the offering of competing doctrines like agency capture and interest group theories. That regulation is undertaken to protect consumers from the abuses of market imperfections and for the achievement of “public-interest related” broad economic objectives remains the viable creed. Public choicers and some political scientists to the contrary, administrative regulation has gotten more expert, more skilled at using analysis and information in decision-making, and more responsive to useful change. Further, it has maintained its independence while retaining the traditional focus of looking after the interests of the unorganized many in juxtaposition with those of the organized few.

A second surviving doctrine is that commission regulation properly accords a good deal of attention to fairness and equity issues and not only economic efficiency ones. Again, the presumption is that markets left to themselves (especially utility ones) will often work in inequitable and maybe even inefficient ways. Thus, regulation (viewed correctly) has always been intended to be more than just a proxy for competition. This approach allows for “social engineering” of various kinds, including the provision of lifeline rates for certain customers and economic development rates for others; for universal service pursuits in telephone and gradualism with respect to rate shock; and for extra caution in curtailment or abandonment of service. Strict imposition of only the efficiency criterion, as is currently espoused in some academic quarters, would, of course, negate all this.

Not surprisingly, the bedrock of judicial review has been a survivor of regulatory change, though the doctrine has shown some shift in emphasis. The shift to be cited is the evolution in the exercise of judicial review where courts no longer consider the expediency or wisdom of a commission order, or whether they would have made a like decision
on the evidence, and instead generally limit themselves to assuring that the process was honored and agency powers were not exceeded. This is consonant with the model of administrative regulation that sees public utility commissions as technocratic in nature and not requiring a lot of “second guessing” on the substance of the arcane issues that come before them.

While the basic doctrine of rate base regulation is currently under siege, it is a survivor. Escape from it as the primary form of social control of public utilities has come mostly through changes in ownership (as from investor-owned to public ownership); changes in corporate organization (for instance, creating subsidiaries, holding companies, other affiliated non-regulated entities); and redefining services and markets (such as CPE, private line network for large users). Direct attacks on rate base regulation take the form of the insistent pursuit of alternatives like various capping schemes, banded pricing, auctions, and market basket regulation. Not currently discussed but an early alternative to rate base regulation employed in the transportation sector, is the setting of allowed ratios of operating revenues to operating costs.

Relat edly, another surviving doctrine is the ratepayers’ entitlement to prudence in investment and expenditure on the part of utility management. The starting point most often cited for this doctrine was Mr. Justice Louis Brandeis in the 1923 Southwestern Bell case. The crescendo of prudence applications has come in the last dozen years (as mentioned earlier). The chance for error in utility planning is demonstrably greater than at an earlier time, and because of the high costs of current capacity additions the consequences for utility customers and investors is also greater. However, industry claims to the contrary, most regulators have not chosen to hold utility managers responsible for systematic risks affecting the industry as a whole. Rather, in their application of the prudence test they have generally held a utility harmless, except for the consequences of investment and expenditure decisions that are unreasonable and imprudent based on the known or the knowable at the time.35

Finally, there are two ratemaking doctrines that are here classified as survivors. The first is the prohibition against undue discrimination (or its counterpart in the transportation field, undue preference and advantage). Always a difficult standard to apply in a sector where discrimination of some types and degree can be in the interest of all parties, it is nonetheless especially important now. The reason is the reported deep discounting in transportation rate schedules (particularly motor freight), the increased interest in incentive rates and economic development rates in the energy field, the appearance of competitive pres-

sures in certain telecommunications markets, and the widespread perception that bypass of the established systems and networks is a generic threat in every utility sector.

The second surviving ratemaking doctrine is that of a fair and reasonable rate of return. The idea continues to be one of a “zone of reasonableness” and not a single fixed number to be discovered. Confiscation of property bounds the lower limit, and monopoly exploitation of consumers prescribes the upper limit. Between these it is recognized that what is merely non-confiscatory may not be fair and reasonable, and that an allowed rate of return is not a guaranteed one. With these acknowledgments, good regulation persistently wrestles with the endless task of relating rates of return to real risks.

**Modifications**

Four doctrines are counted in the modifications category. The first is the much discussed “regulatory bargain.”

While the claims of utilities that the terms of the “contract” between themselves and their regulators (and indirectly with ratepayers) have recently been so violated as to call into question the viable continuation of the doctrine, a fairminded view is that the bargain has been merely altered. Public policy, both legislative and administrative, has set in motion competitive forces that serve to lessen the monopoly status of the utilities. This takes the form of inroads (actual and potential) on traditional territorial exclusivity, relations with customers, ranges of service offerings, and perhaps the certainty of capital recovery. On the other hand, the “original regulatory bargain” probably did not contemplate utility diversification into non-germane business activities and reorganization latitudes such that utilities could choose their jurisdictional regulation, federal or state, according to which might be the more congenial.36 In all events, if the changes in the regulatory contract have made utility life somewhat more risky, the allowed rate of return always can be adjusted to compensate if it has not been already.

There has been a modification in incentive regulation from passive to active. At an earlier time the idea was that the granting of a monopoly franchise was enough to induce high performance by the corporation with proper regulatory oversight. This oversight included employment of regulatory lag, occasional ordering of management audits, invidious comparisons with other utility companies (and public power), and selective jawboning. More recently, incentives have become elaborate in design and active in nature, for example, the creation of rate incentives, power plant productivity rewards, “splitting the sav-
ings" schemes of various sorts, or keeping an extra quarter point on the rate of return for meritorious behavior.

The doctrine of universal service can be said to have been modified. Universal service in the telephone sector was essentially achieved a couple of decades ago. It was a good goal on societal as well as communications grounds and was attained in good measure by the benefits of system averaging. Among the factors that are now impinging on the universal service idea are changes in the allocation and aggregation of costs, an emphasis on pricing according to cost causation, a generalized attitudinal tilt (at least on the federal level) away from special policy concern for the rural and the poor and toward more "business-like" tariffing, and basic shifts in communications technology from a relatively homogeneous service to diverse and enhanced services, making the meaning of the doctrine of universal service still less clear.

Finally, the doctrine of regulation as a proxy for achieving competitive outcomes has come to be modified. This basic tenet has properly been revealed to be too narrow. Approximating the results of competition is obviously an admirable and useful function, but society asks more than that of regulation. As is widely known, certain social goals are not well served by even smoothly functioning markets, and public oversight (not to say public ownership) is required to attend to them. Moreover, even within the public utility field itself, the provision of services by those industries designated as affected with the public interest is (to paraphrase Georges Clemenceau's oft-quoted remark about war and generals) too important a matter to be left to markets and utility executives.

Postscript

Journalists and political scientists are fond of attributing the "staying power" of commission regulation to bureaucratic inertia, powerful special private interests, or legislative committee prerogatives—all serving to frustrate regulatory reduction. A more accurate view is that the persistence of public utility regulation is explained by a loftier reason, and that is that the need for public oversight of economic power in this service sector continues.

Notes

1. It is, of course, less important which ones are in which of these categories than is the assessment of each as a casualty or survivor.
2. Such a reporting is, of course, only a count and, even if fully agreed to as to classification (an unlikely event), says nothing about the relative importance of each of the thirty-eight items. It would seem fair to say that doctrines as a group are more fundamental than concepts or propositions and therefore more important as survivors. Still the groupings remain somewhat arbitrary.
3. Of course, the breadth and intensity of the current attack on regulation is unusual, and one should not be sanguine about the outcome.
4. And if it passed both the prudence test and the used and useful test, a third hurdle may be erected in the future called the least-cost-investment test.
5. The opportunities for tactical employment of regulatory delay by commissions was, of course, always present as long as a utility could not file a new rate case until its previous case was handled.
6. Symmetry should very much apply here, and cost decreases should promptly be reflected in a lowered revenue requirement.
7. Here I have in mind the Bell System break up and alterations in gas pipeline/LDC relationships.
9. The provisions of PURPA Section 133 originally required probably the most comprehensive cost reporting ever in the electric power sector, but subsequent FERC actions diluted the requirements in a hurtful way.
10. See, for example, Patrick C. Mann, Water Service: Regulation and Rate Reform, Occasional Paper No. 4, (Columbus: The National Regulatory Research Institute, 1981).
12. For a good discussion of this issue see David Chessler, Unregulated Enterprises of the Bell Regional Holding Companies, National Regulatory Research Institute, Columbus, 1986.
13. Of course, exclusive franchises make all customers "captive" in some sense.
14. For further commentary on this see, for example, my article "A Defense of Rate Regulation in the Classic Style," Public Utilities Fortnightly, 19 June 1980, p. 4.
15. A number of states now have in place nominating committee arrangements where citizens from specified constituencies cast up a list of acceptable candidates to the governor, and the governor selects one or starts the process over again. A dozen states have legislation prescribing what occupations must be represented on the PSC. There are 12 elected commissions out of the fifty-three state PSCs. National Association of Regulatory Utility Commissioners 1986 Annual Report on Utility and Carrier Regulation, Washington, D.C., 1987, Table 171, p. 830
17. Ibid., pp. 63 and 68.
18. It could be argued that the changes in this case go beyond "modification" and that the concepts belong in the "casualty" category.
19. Some forty-five PSCs now have time limits in which to dispose of cases.

20. Ibid., Table 172, p. 852.

21. A classic example of this organizational pitfall was the Atomic Energy Commission whose duties and responsibilities finally had to be separated, with the NRC taking the regulatory role.


23. Fuel adjustment clauses have been around since World War I, but were uncommon in retail tariffs until the winter of 1973-1974 and the oil embargo.


29. If the period of substantial excess capacity continues for a long enough period of time, it may be that more steeply declining rate structures will return.


33. Ibid., pp. 42-44.


36. See, for example, Jerry L. Pfeffer and William W. Lindsay, The Narragansett Doctrine: An Emerging Issue in Federal-State Electricity Regulation, Occasional Paper No. 8, The National Regulatory Research Institute, Columbus, 1984.