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DOMESTIC TELECOMMUNICATIONS POLICY: AN OVERVIEW

CHARLES F. PHILLIPS, JR.*

Prior to World War II, the domestic public message system was divided into voice and record communications. The former—telephone—was supplied by the American Telephone and Telegraph Company (AT&T) and by hundreds of independent telephone companies. The latter—telegraph—was supplied by Western Union Telegraph Company and the Postal Telegraph Company.1 After the war, however,

the market for communication services changed greatly. The demand for telephone services rose steeply while the demand for public message telegraph services declined sharply. In addition, demands increased for new types of communication services which had been developed to meet the needs of far-flung business firms: teletypewriter exchange, alternate voice/record, and voice/data services.2

The demand for new types of bulk communications services, combined with continuous technological change, have confronted policymakers with a series of issues affecting the structure of the telecommunications industry. Stated briefly, new markets and new potential suppliers have raised the possibility of rendering obsolete the traditional natural monopoly concept. Perhaps the threshold issues concern the extent to which competition should be encouraged and, if it is to be allowed, then it becomes necessary to determine just how competition is to be accommodated within a regulatory framework. It is the purpose of this article to analyze these basic issues.

I. THE TRADITIONAL RATIONALE OF REGULATION

The classic economic explanation of the need for extensive regulation of public utilities is that such businesses are "natural monopolies." The phrase, as James R. Nelson has pointed out, is misleading.

One of the most unfortunate phrases ever introduced into law or economics was the phrase "natural monopoly." Every monopoly

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1The telephone companies also leased private lines to their customers for various purposes, including record services, and offered teletypewriter exchange service.

is a product of public policy. No present monopoly, public or private, can be traced back through history in a pure form. . . .

. . . "natural monopolies" in fact originated in response to a belief that some goal, or goals, of public policy would be advanced by encouraging or permitting a monopoly to be formed, and discouraging or forbidding future competition with this monopoly.  

For telephone and telegraph services, regulation is based on (1) the existence of significant long-run economies of scale, so that one firm can serve a given market at a lower average cost than can two or more competing firms; (2) the necessarily close connection between the utility plant and the subscribers' premises; and (3) the expense, inconvenience and wastefulness to subscribers of parallel competing systems. Given these economic characteristics, it can be demonstrated that unlimited competition will result in inefficiency, poor quality, and high costs. Regulation, therefore, was conceived of as a substitute for competition and was designed primarily to protect the consumer, as opposed to the investor, interest. In such cases, "the visible hand of public regulation was to


3There are other economic characteristics of importance: (1) Because a utility must have adequate capacity to meet its subscribers' peak demand requirements, it tends to have unused or surplus capacity much of the time. Competition may only serve to aggravate the situation. (2) There is a large investment in fixed, and highly specialized, plant, representing a significant percentage of a utility's total cost. (3) To the extent that it is supplying a basic necessity, a utility has some control over the rates it charges subscribers (i.e., for some uses, demand is inelastic). (4) Price differentiation or discrimination is both possible and generally attractive to a utility enterprise. With high fixed costs, unused capacity, and differences in consumer demands, a single rate low enough to maintain full capacity output often fails to yield revenues sufficient to cover costs, while one set high enough to cover costs may result in unused capacity. See C. Phillips, The Economics of Regulation 20-31, 303-10 (rev. ed. 1969).


5J. Bonbright, Principles of Public Utility Rates 5 (1961). In the words of Ben W. Lewis:

There is something quite special about governmental regulation of the public utility type: this is the way we behave when we are really keyed up about economizing, when we stop acquiescing and "going along," when we feel quite certain that, for reasons we can identify, the processes of the free market cannot be made satisfactorily to perform the economizing job we want done and, hence, that we must perform the economizing functions by specifically designed laws, agencies, and measures.

replace the invisible hand of Adam Smith in order to protect consumers against extortionate charges, restriction of output, deterioration of service, and unfair discrimination."

To carry out the task of control, an elaborate regulatory system has evolved. The basic focus of regulation is rate regulation; that is, supervision of a utility's revenue requirements and rate structures. Because of the natural monopoly concept, the regulatory commissions were given by statute the means of limiting (but not eliminating) competition: control over entry, consolidations, and exit; power to prescribe minimum rates; and authority over some aspects of service rivalry. The existence of regulation thus represents a judgment either that competitive goals should be subordinated to other goals in a given industry or that competitive goals are better achieved by direct control over managerial decisions.

As it has developed, regulation has sought competitive goals: reasonable prices and profits, incentives to further technological progress, and adequate and safe service. But the achievement of such goals is difficult. As former FCC Commissioner Loevinger has argued:

The basic strength of the competitive system is that it avoids such problems (i.e., the necessity of securing, organizing, and weighting data adequate to make a complex economic decision) by distributing market power among numerous diverse enterprises, so that operation of the market rests upon the action of many independent decision makers. The vice of monopoly is that it concentrates market power and thus eliminates the diverse independent decision makers . . . . Regulation preserves a number of independent decision makers, but it reduces the number from that which might otherwise exist, and it concentrates decision-making power with respect to the areas of regulatory control. The difficulty is that no regulatory agency can acquire or utilize effectively the range of data which influence a competitive market. Consequently, the ability of regulation to substitute for competition has an inherent limitation which cannot be wholly overcome by any improvement in the regulatory structure or process.

The difficulty of achieving competitive goals arises from other sources as well. Since competition throughout the economy is imperfect, it is not

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8A utility's annual revenue requirement is equal to its allowable operating expenses, depreciation and taxes, plus a fair rate of return (profit) on its investment.
easy to specify with any precision that competitive standard which regulation should seek. Since it must satisfy the requirements of due process ("investigate, give notice, hold hearings, study the record, make findings, issue orders, permit appeals") regulation is inherently slower than competition. Since public policies are shaped by various economic, social, and political pressures, regulation may seek different objectives than those sought through competition, such as the rendition of socially desirable but uneconomic services or the protection of certain industries. Finally, it is difficult to adapt regulatory laws and concepts to meet changing economic conditions.\textsuperscript{12}

II. THE COMPETITIVE CHALLENGE

Few would argue that regulation has been a failure. Nevertheless, criticism of both regulatory purposes and regulatory processes has intensified in recent years.\textsuperscript{13} Some have concluded that direct control over entry, rates, and service is not worth the effort.\textsuperscript{14} Others have concluded

\textsuperscript{11}C. Wilcox, Public Policies Toward Business 477 (3d ed. 1966).

\textsuperscript{12}Professor Rostow, for example, has argued that the statutes which our regulatory agencies seek to enforce are usually out of date, often confused, ill-drawn, and needlessly complex. Many of their rules echo forgotten battles, and guard against dangers which no longer exist. They comprise vast codes, understood only by a jealous priesthood which protects these swamps and thickets from all prying eyes. In the main, the agencies follow routines established for the control of local gas companies and street railways. The relevance of the model is not immediately apparent, in dealing with progressive and expanding industries like air transport or trucking.


\textsuperscript{14}Posner has concluded, for example, that public utility regulation is probably not a useful exertion of governmental powers; that its benefits cannot be shown to outweigh its costs; and that even in markets where efficiency dictates monopoly we might do better to allow natural economic forces to determine business conduct and performance subject only to the constraints of antitrust policy.


On the effectiveness of regulation see Jackson, Regulation and Electric Utility Rate Levels, 45 L. & Econ. 372 (1969); Moore, The Effectiveness of Regulation of Electric Utility Prices, 36 S. Econ. J. 365 (1970); Pike, Residential Electric Rates and Regulations, 7 Q. Rev. Econ. & Bus. 45 (1967); Stigler & Friedland, What Can Regulators Regulate? The Case of Electricity, 5 J. Law & Econ. 1 (1962).
that while direct control is worthwhile (or perhaps inevitable), present regulatory policies do not promote maximum efficiency.\textsuperscript{15} It is significant to note that both groups contend that it would be highly desirable, as well as possible, to rely more heavily upon the forces of competition to improve the economic performance of the regulated industries.

In the post-war period, technological developments—along with continuous market growth—have confronted the established communications' common carriers with important competitive challenges. Microwave transmission, communication satellites, and digital computers have made possible new options for supplying communication services. In addition, a successful attack on the telephone companies' long-standing tariffs prohibiting foreign attachments has opened the equipment and related hardware market to non-affiliated manufacturers. These developments have confronted the FCC, in particular, with the issue of deciding to what extent competition should be encouraged. In its decisions to date, the Commission has established a policy favoring competition.

\textit{The Above 890 Decision.} Until 1959, the FCC licensed private microwave communications systems to government and business units only when they had "special communications needs," such as the lack of common carrier facilities. Several companies announced plans to install microwave systems between selected Eastern cities as early as 1946,\textsuperscript{16} but it was not until 1956 that the competitive challenge from microwave technology become of significance.\textsuperscript{17} In that year, the FCC was asked by prospective private users for access to radio frequencies above 890 mega-


\textsuperscript{17}Although the Bell System had been installing microwave since 1951, Trebing alleges that the system responded to the initial challenge

with a massive effort to integrate microwave capability as a part of its nationwide communications network. This was accomplished through a
cycles to develop non-common carrier microwave service. The suppliers of microwave equipment joined in the request.

The potential entrants contended that there were sufficient frequencies available for both private and common carriers, and that private entry would enhance consumer choice and promote competition in the communications equipment market. The common carriers maintained that the adequacy of the frequency spectrum was limited, so that the frequencies available for common carriers might be insufficient for their entire microwave installations and that private entry might result in interference. They also argued that private entrants would engage in cream-skimming, by entering only on a selective basis. As a result, not only would they lose significant revenues, but smaller users would be burdened with higher rates since the overhead of the common carriers would be distributed over a smaller number of customers.

On July 30, 1959, the Commission issued its Report and Order, in which it removed all significant barriers to the installation and operation of private microwave systems. Concluded the Commission:

1. There are now available adequate frequencies above 890 Mc to take care of present and reasonably foreseeable future needs of both the common carriers and private users for point-to-point communications systems, provided that orderly and systematic procedures and proper technical criteria are applied in the issuance of authorizations, and that implementation is consistently achieved with respect to all available and future improvements in the art. There is a demonstrated need for private point-to-point communications systems. Accordingly, the decision looks toward liberalization of the basis for issuance of such authorizations. Availability of common carrier facilities will not be considered as a condition of eligibility for such private users.

2. There is no basis for generally concluding that the licensing of private communications systems would adversely affect, to any substantial degree, the ability of common carriers to provide service to the general public or adversely affect the users of such common carrier service. Therefore, it is unnecessary to consider whether such licensing is contrary to the public interest.

The MCI Decision. Microwave Communications, Inc. (MCI) filed applications with the FCC for construction permits to provide point-to-point communications systems. In this crash program which resulted in the development of TD-2 radio relay facilities.

Trebing, supra note 3, at 308.


point radio microwave service from St. Louis to Chicago and nine intermediate points. MCI did not propose a complete microwave service; rather, it would require the subscriber to provide his own communications link between the Company's sites and his place of business (i.e., loop service). However, MCI contended that its rates would be substantially lower than those charged by the common carriers, and that the service would provide greater flexibility in terms of the use of facilities.

The common carriers (the Bell System, General Telephone, and Western Union) objected to the applications on the following grounds: (1) that MCI was not financially qualified to construct and operate the proposed facilities; (2) that MCI had failed to show a need for the services proposed; (3) that MCI was unable to provide a reliable communications service; (4) that the proposal represented an inefficient utilization of the frequency spectrum; and (5) that the proposal was not technically feasible.

The Commission granted the applications, finding: that MCI was financially qualified; that a need existed for “microwave service of acceptable quality at lower rates than offered by the existing carriers;” that the MCI proposal “may reasonably be expected to achieve a degree of reliability which, while not matching the high degree of reliability claimed by the major carriers, will provide an acceptable and a marketable common carrier service;” and that the benefits of MCI's proposal “outweigh the fact that MCI will not make the fullest possible use of its frequencies.”

The Commission admitted that the case was very close . . . and one which presents exceptionally difficult questions . . . However, it would be inconsistent with the public interest to deny MCI’s applications and thus deprive the applicant of an opportunity to demonstrate that its proposed microwave facilities will bring to its subscribers the substantial benefits which it predicts and which we have found to be supported by the evidence in this proceeding.

21 Id. at 957.
22 Id. at 963.
23 Id. at 965.
24 Id. at 966. Commissioner Johnson, in a separate statement, said that he was still looking "for ways to add a little salt and pepper of competition to the rather tasteless stew of regulatory protection that this Commission and Bell have cooked up." Id. at 978.

The Commissions rather cautious approach proved to be short-lived. Within twelve months it was confronted with no fewer than thirty-seven applications by companies (ten of them associated with MCI), proposing to establish themselves as specialized common carriers. The proposals involved construction of 1713 microwave stations, more than one-third the number in the entire
The Computer Inquiry. The electronic computer can provide a wide variety of data processing, computational, and information storage and retrieval services to a large number of users at remote locations. It can also be utilized by communications common carriers as part of their networks as a message switching device. Thus, the convergence of communications and computer technologies has made feasible the entry of equipment manufacturers and other firms into supplying communications systems and services, and the entry of common carriers into supplying data processing and specialized information services. Summarizes the FCC's Bernard Strassburg:

Inasmuch as computers have become standard communications gear, the common carrier networks are no longer confining their service offerings to purely communications service. Taking advantage of the versatility and capacity of their computers, certain carriers are now programming them to provide data processing and information storage and retrieval services in combination with their traditional communications services. At the same time, we find that the nonregulated computer service bureaus, and other entities providing specialized information services over communications channels leased from the carriers, are seeking to furnish their customers with message switching services, an activity which heretofore has been limited to the communications common carrier.

In 1966 the Commission issued a Notice of Inquiry seeking to delineate the main issues in the growing interrelationship between the comm-
nications and computer industries. Interested parties were invited to respond to a lengthy list of questions, after which the Commission engaged the Stanford Research Institute (SRI) to prepare an analysis of the issues. The end result, according to Harry Trebing, was a series of self-serving declarations by the parties involved, an abstract of these declarations by SRI, and a series of SRI-sponsored papers which made little or no contribution to the literature on public utility economics, the organization of the industry, or the task of regulation. Perhaps the most intriguing feature of this entire process was the Justice Department presentation, which argued that common carriers should not provide computer services except through arm’s length subsidiaries. Considering the difficulties involved in assuring such a relationship, the Justice Department response comes close to establishing a per se argument that the common carriers be foreclosed from providing teleprocessing services. At present, it appears that the FCC has most of the distance to travel before an informed judgment can be made about the relationship between common carriers and the computer industry and the scope of regulation.

The Commission’s Final Decision was issued in March of 1971. In that decision, rules were adopted which prohibit common carriers (domestic and international) from buying data processing services from their own affiliates and which prohibit such data processing affiliates from using their parents’ names or obtaining promotional or other assistance from them. Explained the FCC’s majority:

The fundamental question raised . . . is whether the extent of required separation between a carrier and its data affiliate, as set forth in the tentative decision, suffices to prevent any arbitrary manipulation in the allocation of revenues and expenses between carrier’s regulated and unregulated service offerings.

The specialized and variant nature of the data processing services, particularly with reference to costs and charges thereof, is conducive to improprieties which are difficult to detect. Such improprieties could translate into inflated charges to customers of a

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21Trebing, supra note 3, at 324 (footnotes omitted).
carrier's regulated services which, in turn, could lead to lengthy administrative proceedings and other litigation.

At the same time, such improprieties could cause irreparable harm to a carrier affiliate's data processing competitors and thus, to the essentially competitive market within which data processing service offerings currently exist. In other words, excessive payments by carriers to data processing affiliates would enable the affiliates to unfairly underprice their own competitors in the data processing market.

Since the basic objective of our policy herein is the deterrence of foreseeable abuse from indirect carrier entry into data processing, we shall amend our rules to include a provision prohibiting a common carrier from obtaining any data processing service from its data affiliate.\(^3\)

**Foreign Attachments.** For many years (and with certain exceptions), telephone tariffs have prohibited the attachment of devices, other than those supplied by telephone companies themselves, and the interconnection of customer-owned communications systems directly to the telephone network. The purpose of this policy was to protect the integrity of the network. In 1968, the FCC held that AT&T's existing tariff was "unreasonable, discriminatory, and unlawful" since it prohibited "the use of interconnecting devices which do not adversely affect the telephone system." But the Commission said that telephone companies "may submit new tariffs which will protect the telephone system against harmful devices, and may specify technical standards if they wish."\(^31\)

AT&T filed new tariffs in October of 1968 under which the telephone network was opened to a wide variety of customer-provided equipment, including the interconnection of most private systems. The new tariffs contained the provision, however, that any network-controlled signalling device (e.g., the ordinary telephone) had to be furnished, maintained, and installed by the telephone company. After the Department of Justice complained that the new tariffs did not comply fully with the *Carterfone*...
decision, the Commission initiated a series of informal conferences, and subsequently, two technical committees were appointed, to evaluate the Company's foreign attachment and interconnection policies. These committees are to report to the Commission at some future date.

**Domestic Communications Satellites.** The Communications Satellite Corporation (Comsat) was established by Congress in 1962 to set up an international satellite system. At that time, the economic feasibility of a domestic satellite system was in doubt. Three years later, the issue was raised by the American Broadcasting Company, when it asked the FCC for permission to launch a domestic satellite for television broadcast distribution. The Commission thereupon invited suggestions from other interested parties. Many proposals were received, including one from the Ford Foundation that recommended the establishment of a new non-profit corporation to distribute television programs via satellite so as to help finance an improved and expanded educational television system.

Then, early in 1970, the FCC received a policy statement from the White House, proposing a three- to five-year test of free entry and competition in the domestic satellite field. Said the statement, in part:

In the absence of clear economies of scale and overriding public interest considerations to the contrary, the American economy has relied on competitive private enterprise rather than regulated monopoly to assure technical and market innovation.

At this stage of domestic satellite planning, it is not possible to identify major economies of scale. Rather, it appears that a diversity of multiple satellite systems as well as multiple earth stations will be required to provide a full range of domestic services.

Further, we find no public interest grounds for establishing a monopoly in domestic satellite communications.

Subject to appropriate conditions to preclude harmful interference and anti-competitive practices, any financially qualified public or private entity should be permitted to establish and operate domestic satellite facilities for its own needs; join with related entities in common-user, cooperative facilities; establish facilities for lease to prospective users; or establish facilities to be used in providing specialized carrier services on a competitive basis. Common carriers should be free to establish facilities.

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for either switched public message or specialized services, or both.\textsuperscript{34}

By mid-1971, eleven parties had filed applications with the FCC for authorizations to provide domestic satellite service.\textsuperscript{35} In March of 1972, the Commission invited interested parties to comment on four specific issues: (a) whether the Commission should adopt a policy of limited or unrestricted open entry; (b) whether the Commission should require Comsat to choose between owning and operating a system dedicated to AT&T's use or owning and operating a system for the purpose of furnishing services to persons other than AT&T; (c) whether AT&T should be limited in its use of satellites to the furnishing of its noncompetitive services (e.g., message toll telephone and wide area telephone services); and (d) whether the Commission should require licensees to provide free service to educational entities or leave such questions to future ratemaking activities.\textsuperscript{36} The Commission is expected to reach a decision before the end of 1972.

III. THE COMPETITIVE DILEMMA

Most economists would undoubtedly agree with Donald F. Turner that

the difficulties and inadequacies of direct regulation, theoretical as well as practical, suggest that it should be confined to cases in which strong elements of natural monopoly are plainly present. They also suggest that, even where some direct regulation is thought necessary, the regulatory agency should take advantage of whatever competitive possibilities exist.\textsuperscript{37}

The Federal Communications Commission, in its decisions to date, has clearly adopted this general position.\textsuperscript{38} But in seeking to rely upon the forces of competition to a greater extent in the future than in the past, complex policy problems have been raised that have not received adequate attention.

Market Structure. Perhaps the basic policy decision concerns the type

\textsuperscript{34}The White House, Memorandum for the Honorable Dean Burch, Chairman of the Federal Communications Commission, January 23, 1970 (mimeographed). See generally Final Report, President's Task Force on Communications Policy (1968) (especially chapter 5).
\textsuperscript{35}TELECOM. REP. 1, at 1-6, 43-62 (May 17, 1971).
\textsuperscript{36}Memorandum Opinion and Order, FCC Docket No. 16945 (March 17, 1972).
\textsuperscript{38}The common carriers have responded to the competitive challenge. The Bell System, for example, has introduced a number of new services, including Telpak and WATS (Wide Area Telephone Service). Western Union, as noted earlier, is establishing computer centers.
of market structure that would be the most desirable for the future development of the domestic telecommunications industry. In a recent study, Professors Baumol, Eckstein, and Kahn suggest that four broad types of market structure are possible:

1. **Regulated monopoly**: The Federal Communications Commission may decide that, despite the many applications for entry into the field, the advantages of maintaining intact the near-monopoly of the Bell System justify the rejection of all or almost all of the competitive applications.

2. **Full competition with guarantees to prevent abuses**: The Commission may decide that an increase in the number of competitors in the field of communication is desirable and, accordingly, may approve competitive applications. Full competition requires that there be no fundamental restrictions preventing any firms that wish to do so from competing fully and effectively. In particular, such a policy calls for the Bell System to be authorized to engage in effective competition as well. Of course, the policy requires some provisions to prevent abuses in pricing practices that might occur either deliberately or inadvertently.

3. **Full competition in only certain segments of the market**: A variant of the second alternative would permit entry into only those fields in which applicants can show that there is a reasonable prospect that entry would make significant contributions to technology or to the variety of services available to consumers, without resulting in unacceptable losses of efficiency or deterioration in the quality of service. This policy would attempt to combine the stimulus of competition with preservation of the resource savings that can be achieved through economies of scale and integration available to this industry under monopoly. To make this policy more than a disguised variant of the protected competitor policy, the principles of full competition just described must be applied without restriction within the area.

4. **"Competitors" protected from full competition**: The last possibility involves an increase in the number of firms operating in the communications field but brings with it a variety of restrictions on freedom of pricing, investment, and marketing decisions which in effect merely divide the market and prevent the competitive mechanism from working. The full implications of this fourth alternative must be understood because it is precisely the arrangement one encounters in some other regulated industries.39

On the basis of their analysis, the authors conclude that the most reasonable national policy choice may be either maintenance of regulated monopoly or full competition in appropriate selected areas, but they reject completely the fourth alternative. The relevant question, they maintain, is whether "economies of scale are so great as to outweigh the benefits of competition. . . ." On this empirical issue, there is little consensus.

**Pricing under Full Competition.** A closely related policy consideration concerns the Bell System’s pricing scheme. For many years, nationwide averaging has been practiced, under which toll rates are the same for equal distances throughout the continental United States, despite differences in the costs involved. Such a rate structure has many important advantages (e.g., simplicity and ease of understanding), but results in "internal subsidization." Such a rate structure also invites selective entry (usually referred to as "cream-skimming") into high-density, low-cost markets. Thus, MCI and others seeking to enter the specialized services segment of the telecommunications industry wish to serve such markets. In turn, if the Bell System is to compete with such entrants, it may be forced to sacrifice geographic rate uniformity, as the FCC has recognized, which would tend to raise rates in low-density, high-cost markets.

Full competition means that methods must be devised to insure that the common carriers do not use the power at their disposal in the monopoly area of their business to gain an unfair advantage over their rivals in the competitive area. Such methods are necessary since the competitive forces outlined earlier do not apply to all of the services offered by the common carriers; i.e., competition for bulk communications services does not protect local exchange or message toll telephone subscribers. Those

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41The authors conclude that:

The critical defect of the admission of competitors along with the prevention of full competition—which can be described as a form of government-enforced cartelization—is that it leads to inefficiency in an industry’s performance. By preventing more efficient suppliers from competing to get the business to which their lower incremental costs entitle them, it ensures that industry costs will be inflated. Indeed, the central purpose of the cartelization is to protect less efficient firms against competitive displacement.

42Id. at 11.

43Id. at 6.

44See the economic testimony in Phase 1B of the FCC’s telephone investigation (Docket No. 16258) as summarized in Phillips, *Phase 1B of the Telephone Investigation*, 87 PUB. UTIL. FORT. 20 (April 15, 1971).

45For an analysis of the cream-skimming issue, see KAHN, supra note 24, at 220-50.

46In announcing its policy of free entry by specialized carriers, for example, the Commission stated that the common carriers may depart from nationwide average rate levels.

37 TELECOM. REP. 1 (June 1, 1971).
familiar with the jurisdictional separations (cost allocation) procedures will quickly recognize the complexity of this issue.\textsuperscript{45}

If cross-subsidization of one service by another is to be prevented, and if competition is to be encouraged, the relevant measure of cost must be marginal (incremental) not fully allocated.\textsuperscript{46} Fully allocated cost studies, which have been common in rate proceedings, seek to relate the revenues received from each service with the corresponding fully allocated (or fully distributed) costs. Such studies, however, are subject to three basic defects.

In the first place, since overhead costs are fixed and are not attributable to any particular traffic or consumer, any allocation of such costs is largely arbitrary. Any formulas for allocating common or joint costs "are insensitive to market factors and to differential cost behavior with changes in the output of different classes of service. They usually express little more than someone's intuitive notions about elementary fairness in cost sharing."\textsuperscript{47} In the second place, fully allocated cost studies are retrospective (i.e., based on sunk costs) and, hence, cannot be used for pricing decisions. Because they ignore differences in demand elasticities, such studies fail to provide a basis for deciding whether rates should be raised or lowered. It can be readily demonstrated that if a carrier can supply a service that is priced to cover its associated long-run marginal cost,\textsuperscript{48} then the rates on its other services can be lowered, since the common plant costs to be borne by other consumers are reduced. In the third place, as Leland L. Johnson has contended, the fully allocated cost criterion is incompatible with liberalized freedom of entry:

The mere fact that a new entrant's rates for a particular route or for a particular service are lower than those of the established carrier does not indicate that the new entrant's costs are necessar-


\textsuperscript{48}Sometimes referred to as "complete incremental cost" or "full additional cost," the long-run marginal cost concept includes the out-of-pocket expenses of the added service, a portion of the common plant required by that service expansion, the required return thereon, any increase in overhead expenses which may result from the service expansion, and a portion of the investment required to meet the carrier's future growth. Moreover, long-run marginal costs provide only the floor below which no rate should fall, with actual rates above such a floor being determined by market forces.
ily lower than the existing carrier's long-run incremental costs for comparable service. In order to discourage uneconomic entry, it is essential to permit the carriers to respond by adjusting their rates toward their own incremental costs. Existing rates must not be frozen to provide an umbrella protecting uneconomic competitive activity.49

The FCC has been struggling with ratemaking principles for several years. In concluding its investigation into the economics of pricing in 1969, the Commission said that its "Statement of Rate-Making Principles and Factors"

properly recognizes the relevance of both fully distributed and incremental costs in considering appropriate rate levels of specific classes of service. . . . It is the thrust of the statement that effective testing of the complex economic theories of costing and pricing which have been advanced in this record, and the reconciliation of opposing, or at least partially conflicting, views of expert witnesses, can best be accomplished by relating the principles advocated to specific rate proposals.50

Other Considerations. In deciding on an appropriate market structure for the domestic telecommunications industry, many subsidiary issues also must be considered. These issues include the desirability of duplication of facilities; adequacy of the frequency spectrum, and the maintenance of backup capacity. Consider the third—the maintenance of backup capacity. MCI, for example, is not a common carrier. To what extent, then, is the Bell System—as a common carrier with a service obligation—responsible for maintaining backup (or standby) capacity? Equally important, who should pay for such capacity? After a careful analysis of the MCI case, Alfred E. Kahn has concluded:

So, paradoxically, MCI's entry might well constitute cream-skimming, but cream-skimming with the effect of introducing internal subsidization where none existed before—subsidization of MCI's customers by AT&T's captive customers being forced to carry a disproportionate share of the backup capacity costs.51

IV. CONCLUSIONS

Technological advances have confronted the Federal Communications Commission with some difficult policy decisions. Liberalized entry

51Kahn, supra note 24, at 239.
into the domestic telecommunications industry has become possible, thereby challenging the long-held monopoly position of the common carriers. The diverse firms seeking to enter have one common characteristic: they seek entry "in order that they may serve particular segments or portions of the communication and teleprocessing markets." They have maintained, in support of their efforts to have restrictions on entry liberalized, that "they will bring a greater range of choice to the consumer, supply services which are not currently available, and increase the range of options in terms of leasing versus buying."

In its recent decisions, the FCC has decided that such entry would be in the public interest. Lionel Kestenbaum, after a review of those decisions, has written:

No doubt, an entirely open and balanced weighing of the opposing contentions and expectations would have permitted a judgment either way on these issues. The Commission in effect resolved them by putting the burden on the common carrier system to justify the need for monopoly. Implicitly, it accepted the proposition that certain objectives of communications policy could not as equally be assured by a monopoly carrier subject to regulatory supervision. Or, at the least, it implemented the legal-economic judgment that reliance upon regulation is a last resort, justified only when competition is not feasible or practical.

The common carriers have had difficulty in sustaining the justification burden. In general, they have opposed a policy of liberalized entry on the grounds that the frequency spectrum is limited, so that entry would lead to its wasteful use, and that the inherent duplication of facilities and cream-skimming by entrants would be detrimental to maximum efficiency (i.e., would make it difficult to achieve economies of scale) and would result in higher rates to many subscribers. But to date, the common carriers have failed to persuade or convince the Commission that these potential adverse consequences of liberalized entry outweigh the

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22Trebing, supra note 3, at 313. Professor Trebing goes on to note that "[t]here appears to be little evidence that the new entrant will challenge the established carriers in the broad public message telephone and record markets." Id. at 314.

23Id. at 313.


25As Professor Trebing has pointed out:

It is also possible that potential entry will be employed by large-volume consumers to extract special rate concessions from the carriers, thereby placing an added burden on the monopoly services.

Trebing, supra note 3, at 313-14.
potential advantages of introducing competitive forces, particularly in the area of technological advance.56

At the same time, the decisions reviewed in this article suggest that the Commission has not been fully consistent. Thus, while full competition was encouraged in the specialized carrier decision, protected competition was promoted in the computer inquiry decision. Since the economic issues were similar in each, it is hard to reconcile these two Commission orders. Nor has the Commission ever really come to grips with such issues as the use of the frequency spectrum or the benefits and costs of nationwide averaging.

Perhaps inconsistency is inevitable when such complex issues continue to be decided on a case-by-case basis. "Too often, pricing, interconnection, and other market structure variables are considered separately."57 There is no overall domestic telecommunications policy. The FCC's case load undoubtedly prohibits it from formulating such a policy. The Commission attempted a detailed examination of pricing principles, in an attempt to formulate a policy in that important area, but was unable to reach a clear decision.58 It then retreated once again to the traditional approach; that is, to looking at pricing principles with respect to a specific rate problem.59 In such a setting, it is difficult to reach policy decisions.60 At a minimum, therefore, the Commission's decisions indicate that it would be desirable to formulate such an overall policy in the near future.

56See Shepherd, The Competitive Margin in Communications, in TECHNOLOGICAL CHANGE IN REGULATED INDUSTRIES 86 (W. Capron ed. 1971). Professor Shepherd admits, however, that "further research is needed on a variety of trade-offs among technological factors, such as system integrity, reliability standards, and economies of vertical and horizontal integration." Id. at 122.

57Trebing, supra note 3, at 326. Professor Trebing noted:
Each issue continues to be considered in isolation, and there is very little evidence to suggest that unified policies and standards will be forthcoming in the reasonable future.

Id.

58Text accompanying note 50 supra.


60Professor Trebing has suggested a systems approach to common carrier regulation. Systems planning would seek to interrelate all variables pertaining to the common carrier service, as well as general communications, in such a fashion that they can be treated sequentially and cross-sectionally. Systems analysis must interrelate (1) the over-all system integrity of common carrier communications; (2) coexistence of monopoly and competition; (3) the need to assure an inducement to superior performance and freedom of consumer choice; and (4) efficient use of public resources.

Trebing, supra note 3 at 326.