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VERTICAL INTEGRATION AND THE COMMUNICATION EQUIPMENT INDUSTRY: ALTERNATIVES FOR PUBLIC POLICY

Manley R. Irwin† and Robert E. McKee††

The common ownership of public utility and private manufacturing activities has long posed conflicting implications for public policy. Nowhere is this conflict more evident than in the vertical relationship exhibited by the communication equipment industry. The integration of utility and supplier may yield production economies, reduce communication equipment costs, and ultimately lower the price of communication service. On the other hand, vertical integration, in addition to aggravating regulatory problems, may lend itself to market abuse by restricting market entry, squeezing nonintegrated rivals, and passing cost inefficiencies forward into the common carrier's rate base. The line separating market efficiency and market power is by no means clearly defined. But the fact that nearly ninety percent of the communication equipment market is supplied by manufacturing affiliates of common carriers suggests that these issues cannot be dismissed lightly.¹

There are three basic alternatives for structuring the communication equipment industry: (1) to maintain the present vertical integration of utility and supplier; (2) to permit vertical integration, but to require the utility to solicit competitive bids; and (3) to separate the utility from the supplier and thereby foster open market rivalry. Although the present integration seems efficient at first glance, it tends in practice to encourage decisions that are economically unsound from the standpoint of society. In addition to analyzing the deficiencies of the present integrated system, this article attempts to determine the most appropriate mode of competition for the industry and to demonstrate that the Federal Communications Commission has the power to restore competition in major segments of the communication hardware market.

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¹ See Answer at 4, *United States v. General Tel. & Electronics Corp.*, Civil No. 64-1912 (S.D.N.Y., filed June 19, 1964).

I

THE EXISTING MARKET STRUCTURE

The integration of utility and supplier that dominates the communication industry is illustrated by the organization of the Bell Telephone System and the General Telephone System. The Bell System is the larger in both common carrier and manufacturing activities. Its twenty-two associated companies account for the bulk of the nation's local and toll telephone service. Bell's manufacturing subsidiary, Western Electric, supplies approximately ninety percent of the equipment needs of the Bell System companies and almost eighty percent of the total output in the domestic market.² The addition of Bell Laboratories, the research arm of the system, and American Telephone and Telegraph, the parent firm, completes what is generally known as the Bell System.

The General Telephone System mirrors the Bell System. On the utility side, General operates the nation's second largest telephone system; on the hardware side, General's manufacturing affiliates (Automatic Electric, Lenkurt, and Leich) supply apparatus to its affiliated telephone companies. The General System differs from AT&T, however, in that General Telephone Company owns the telephone utilities but is not itself an operating company.

The remaining two thousand telephone or telegraph carriers, independent of both Bell and General, are relatively small, as are the dozen or so independent equipment manufacturers. Since the integrated carriers prefer—though they are not required by contract—to purchase their hardware requirements from or through their captive affiliates, for all practical purposes the equipment market can be treated as vertically integrated.

II

MARKET CONFIGURATION—EVALUATION OF POLICY ALTERNATIVES

In evaluating the three basic policy alternatives—vertical integration, vertical integration with competitive bidding, and no integration (*i.e.*, competition)—one should bear in mind that the relevant equipment market embraces the total equipment market, not merely part of it. If, for example, vertical integration is judged suitable for General or Bell, then independent carriers should likewise be permitted to purchase or merge with suppliers. Conversely, if arm's-length competition

² Florida Pub. Util. Comm'n, General Investigation of Southern Bell Tel. & Tel. Co., Order No. 3715, Nov. 30, 1964, at 4 (testimony of General Services Admin.).

between supplier and utility is deemed appropriate, that policy must embrace the entire equipment market.

A. *Vertical Integration*

Maintaining the status quo is an obvious possibility. A common carrier under no constraint to conduct competitive bids may funnel equipment orders to its captive supplier. The policy of in-house procurement is defended on two grounds, one theoretical and the other empirical.

The theoretical rationale of vertical integration equates joint ownership with economic efficiency. The argument is that equipment costs and communication service rates are minimal because economies of integration permit the meshing of research, service, and manufacturing activities. Ultimately, the consumer benefits from these economies. The most spirited empirical defense of vertical integration originates with the Bell System. In some two hundred rate cases, Western Electric prices were shown invariably to be lower than those of independent suppliers.³ This evidence, often imposing, lends credence to the economies-of-integration thesis; the relationship with Bell permits Western Electric to avoid advertising expenses, sales costs, and credit risks. In short, vertical integration, rather than a competitive market, best meets the test of cost efficiency.

But these arguments are not necessarily conclusive. Under public utility regulation, carriers are entitled to earn a reasonable return on their investment. A large segment of Bell's rate base consists of plant and equipment purchased from its affiliate. Absent the checks and balances of market rivalry, hardware affiliates, adopting a cost-plus philosophy, can merely pass unwarranted manufacturing costs forward to the utility's rate base. The opportunity is certainly attractive, in view of the peculiar structure and incentive of integrated entities. Of course, since the Supreme Court's decision in *Smith v. Illinois Bell Telephone Co.*,⁴ regulatory commissions can, in fixing rules for Bell operating companies, inquire into the reasonableness of the prices and profits of Western Electric. Nevertheless, without direct regulation of equipment affiliates, it is difficult for regulatory bodies to detect such practices, much less bring them to an end.

Further, there is no test for determining the appropriate profit range for a utility-owned manufacturing unit. And, since no other supplier occupies a similar position, this void cannot be filled by examining the

³ R. Bickett & T.W. Spicer, "Indirect Regulation of Western Electric" (informal talk given to Amherst Group, Dec. 20, 1962).

⁴ 282 U.S. 133, 152-53 (1930).

existing market. The supply affiliate, obviously insulated from the usual hazards of the market, neither invites nor seeks public utility status. Accordingly, the vacuum is filled not by an appropriate theory of risk or comparable earnings, but rather by something resembling the corporate conscience. The difficulty is that this conscience has more than a passing interest in profits, particularly when its parent firm's earnings are circumscribed by regulation.

It is true that the two hundred rate cases show that Western Electric's prices are below those of comparable items supplied by nonintegrated firms. These economies ostensibly compel the Bell operating companies to turn to their supply affiliate for hardware needs. Presumably, General Telephone justifies its in-house procurement policy on similar grounds. Low hardware prices, however, may not be optimum prices, and there are profound obstacles to detecting, much less measuring, the difference. Comparing the prices of independent manufactures with those of Western Electric, as Bell has done in the rate cases, does not provide the answer, since market structure bears directly on market performance. By foreclosing market access, the integrated utility can saddle independent firms with restricted output, high per-unit costs, and resulting high prices. Price comparison studies between integrated and nonintegrated firms thus tend to become meaningless; vertical integration rigs the very standard invoked to justify the economies of the utility-supplier. In short, empirical price comparison studies, long accepted by the courts as a test of reasonableness, tend to beg the cost question.⁵ The equipment supply industry can seek to sell at optimum prices only if it is allowed to develop in a truly competitive atmosphere.

Obviously, not all vertical integration can be viewed as antagonistic to market efficiency. Indeed, the merger of buyer and seller often can effect pronounced cost savings, but the existence of these savings is usually tested by a competitive market. Transplanting such integration to a regulated industry, however, creates unique problems. Given the mechanics of rate base determination, the suspicion is never settled that the captive supplier is receptive to its parent's rate making philosophy.

⁵ For a typical defense of Western Electric price studies, see Phillips, *Some Observations on the FCC's Telephone Investigation*, 77 PUB. UTIL. FORTNIGHTLY, Feb. 17, 1966, at 23, 32-33.

With respect to the reasonableness of Western Electric's prices and profits, what additional proof can a vertically integrated company offer to justify "internal" prices that are not subject to a direct market test (i.e., that are not subject to arm's length bargaining) beyond the price comparisons and reasonableness of profit standards laid down by the Supreme Court in *Smith v. Illinois Bell Tel Co.*? *Id.* at 33.

B. *Vertical Integration with Competitive Bidding*

In contrast to pure vertical integration, a second alternative links competitive bidding to the utility-manufacturer relationship. Although the telephone utility retains its interest in the manufacturer, it must nevertheless solicit competitive bids from nonaffiliated equipment suppliers. In this sense, competition riding tandem with vertical integration seeks the best of both worlds. But its approval of the utility-supplier complex, such a policy seems to approve the economies-of-integration thesis. Yet, by adding the external pressure of competition in the equipment market, this alternative regularly tests the alleged economies identified with the integrated utility.

This approach raises several problems. First, given the present market structure and the costs of present manufacturers, the independent firms apparently cannot compete effectively with the integrated suppliers. Who, then, is to keep the independent firms alive until perhaps they can grow or develop so as to be able to compete? A first candidate is the integrated rival itself. But should utility-owned suppliers underwrite their competitors? If they do not, the independent suppliers may turn to government subsidy, a move that would be justified by their role as guardians of utility-supplier efficiency. The result, however, would be the spectacle of public subsidies under the guise of measuring monopoly efficiency. The question whether competing firms can survive thus compounds rather than simplifies public policy in the equipment market.

A second problem is that, even if the independent supplier can offer lower prices than the affiliated one, the telephone utility is unlikely to purchase outside merely on the basis of the lowest bid. Price is only one of many variables that include quality, delivery time, technical competence, and ability to get along. The carrier, needless to say, is hardly in a position to judge "other things being equal"; and the list of standards is sufficiently broad to accord the telephone utility virtual discretion in its procurement policy.

A third obstacle to grafting competitive bidding on vertical integration turns on the carrier's allocation of research and development expenditures. Bell Laboratories, the research arm of the Bell System, divides its expenditures between AT&T and Western Electric.⁶ AT&T in turn assigns this cost to the twenty-two associated Bell companies under terms of its licensed contract. Thus, when Western Electric sells equipment to a Bell operating company, Western's costs include only part of the total research and development expenses of Bell Laborato-

⁶ FCC, REPORT ON THE INVESTIGATION OF THE TELEPHONE INDUSTRY IN THE UNITED STATES, H.R. DOC. NO. 340, 76th Cong., 1st Sess. 196-97 table 40 (1939).

ries. Both flows of research and development expenses, of course, merge and determine part of the carrier's revenue requirements; the consumer of telephone service does not care about the mechanics of research and development allocation, since his telephone rate reflects the final incidence of research expenditures in any case.

The independent equipment supplier, however, views this cost allocation with less equanimity. Even if it enjoys lower production costs on a competitive product, there is no guarantee that it can demonstrate a lower price. The nonintegrated company's price must cover both manufacturing and research costs, whereas the integrated supplier's price covers less than total research costs. As one manufacturer put it:

Since carriers obtain their revenues from rates levied on public usage of their facilities, and since portions of this revenue are utilized to develop new techniques, the question is also raised concerning the propriety of permitting carriers with manufacturing capability to utilize funds derived from public sources in such a way as to force other companies into a noncompetitive position.⁷

Thus, low cost and efficient performance by independent suppliers may not necessarily be rewarded by market entry. Competitive bidding may be undermined by the complexities of internal cost allocation, a division of revenues that artificially consigns to the carrier's manufacturing affiliate the role of perpetual low bidder.

A fourth and final problem is that the integration-with-competition solution embraces conflicting cost assumptions. If vertical integration is justified by inherent economies, then the nonintegrated firm is redundant and cannot long survive. If, on the other hand, no economies can be identified with vertical integration, then, though it may be justified from the point of view of the firm, this corporate relationship clearly has no validity in terms of the economy as a whole. In either case, patching vertical integration with a competitive bid mandate emphasizes policy form rather than policy substance.

C. *Competition*

Open market rivalry stands as a third policy choice for the equipment industry. This alternative is grounded in the assumption that the relationship between utility and supplier manifests no inherent economies of integration. Since manufacturing the apparatus is an activity separate and apart from rendering communication service, separation of the utility and the supplier marks a first step in bringing to the equipment market open access, rivalry, and true efficiency.

⁷ Report and Order, Proposed Global Communications Satellite Sys., 38 F.C.C. 1104 (1965). See Comments of Westrex Communications Division, Litton System, Inc.

III

VERTICAL INTEGRATION AND THE INNOVATIVE PROCESS

The economies-of-integration thesis holds that the common ownership of private manufacturers and public utilities confers optimum costs upon communication services. If one assumes that the state of the technical art is fixed, it is conceivable that a manufacturer with a captive market can reach for output levels without fear of product obsolescence or rising variable costs. Clearly, however, the assumption that technology is fixed defies reality. With the exception of the aerospace industry, communications and electronics firms receive the highest proportion of government research contracts.⁸ It must also be noted that economies arising from the innovative process dictate downward shifts in average cost curves, whereas economies of size are identified with downward movements along a static cost curve.

Economies of integration, then, must be measured in dynamic, rather than static, terms; and here vertical integration tends to dampen innovation because of its anesthetizing effects on research and development efforts. Operating in a noncompetitive market, an integrated supplier is not under pressure to introduce new products arising out of its own research efforts. But more important, since the market is essentially foreclosed, the independent supplier is reluctant to engage in research and development efforts without any hope of recovering those research dollars. All of this not only imposes social cost in terms of products denied or delayed, but artificially constricts the number of firms seeking multiple, diverse, and alternative approaches to the innovation process.

Because the depressive effect of vertical integration on the innovative process resists precise quantification, we must resort to a case study approach. The cases include communication satellites, microwave communication systems, and computer forwarding and data attachments.

A. *Communication Satellites*

Satellite relay systems became feasible in the late 1950's through simultaneous developments in rocketry and microwave technology. In 1959 the Bell System proposed a global satellite network consisting of satellites placed in random orbits at an altitude of about 6,000 miles.⁹ Because any given satellite would be within radio range for only some twenty minutes, continuous transmission of communications required

⁸ *Research and Development in the Electrical Equipment and Communication Industry, 1956-62*, 2 REVIEWS OF DATA ON SCIENCE RESOURCES, Jan. 1965.

⁹ Testimony & Exhibits of J.B. Fisk at 16, *In re Allocation of Frequencies in the Bands Above 890 Mc*, 27 F.C.C. 359 (1959).

construction of pairs of ground stations and the orbiting of approximately fifty satellites. This translated into formidable capital outlays that precluded most firms from participating commercially in satellite systems. Indeed, the formation of the Communication Satellite Corporation as an industry consortium was premised on the heavy investment required for the satellite relay systems.

By contrast, the synchronous satellite plan places the satellite at an orbit altitude of approximately 22,300 miles. The period of satellite revolution, approximately the rotation of the earth, makes the satellite appear fixed. Since this enables each satellite to cover one-third of the earth's area, fewer satellites are needed. Also, this plan permits much less complex ground stations which need merely adjust to relatively fixed satellite positions. Technical simplicity translates into such cost reductions that one corporation, the American Broadcasting Company, has applied for its own private domestic satellite system for broadcast purposes.¹⁰

The synchronous satellite plan, now a standard approach to commercial satellite systems, was not sponsored by the integrated carriers. Rather, it was advanced by Hughes Aircraft and Lockheed, nonintegrated aerospace equipment suppliers.¹¹ Time has demonstrated that these nonintegrated suppliers were on the right track in both technology and cost.

B. *Microwave Transmission of Television*

Microwave communication systems provide another case of technological innovation. Voice, data, or facsimile can be transmitted through coaxial cable systems or point-to-point radio communication networks. Before World War II, the Bell System invested heavily in coaxial cable systems, anticipating television and voice traffic. Microwave technology stands in contrast to coaxial or wire cable systems. Radio signals are transmitted between repeater towers located twenty to thirty miles apart, obviating the need for pole rights of way and thus lowering circuit costs.

By the end of World War II, this equipment, now available com-

¹⁰ ABC's application prompted the FCC to open a separate inquiry, *In re Establishment of Domestic NonCommon Carrier Communication Satellite Facilities by Non-Governmental Entities*, 2 F.C.C.2d 668, 671 (1966).

¹¹ *Hearings on Satellite Communications Before the House Comm. on Gov't Operations*, 88th Cong., 2d Sess., pt. 1, at 373 (1964) (testimony of Dr. Puckett):

The Hughes Aircraft Co. has been active in the study and development of communication satellite system hardware since early in 1959. Our studies at that time led us to believe that there would be very important advantages in the use of a synchronous satellite for communications.

See also LOCKHEED AIRCRAFT CORP., MISSILES & SPACE DIV., TELESTAT (1961).

mercially, enabled Western Union to begin construction of a radio relay network.¹² However, the FCC's refusal to order interconnection of the telegraph company's facilities with the Bell System effectively eliminated the Western Union microwave system as a means of delivering television transmission service.¹³ Later, the Bell System shifted its investment from coaxial cable to microwave radio.¹⁴

Although Western Electric manufactures the bulk of today's heavy-duty microwave equipment, the lesson of the Western Union experience cannot be lost. The innovation of microwave technology was sponsored by nonintegrated suppliers who preceded their integrated counterpart.

C. *Private Microwave Transmission*

Radio relay techniques can be privately owned as well. Before 1960, however, noncarrier use was prohibited because of limitations in the frequency spectrum; entities with large communication requirements necessarily leased lines from the common carrier industry. In the middle 1950's the FCC received petitions to liberalize radio frequency licenses from two sources. Large business users sought private microwave as a means of reducing lease charges paid to the communication carriers, and manufacturers sought to exploit private microwave as an outlet for equipment and related hardware.

¹² H. Golden, *The Domestic Telegraph Industry and the Public Interest* 246 (unpublished dissertation, Harvard University, 1950).

¹³ Docket No. 9539, *In re Establishment of Physical Connections & Through Routes & Charges Applicable Thereto*, 6 Ad. L. (1st ser.) (1951). See also Beelar, *Cables in the Sky and the Struggle for Their Control*, F. COM. B.J., Jan. 8, 1967, at 31-32:

Television broadcasters appeared unexpectedly as a late challenger to AT&T's position as the sole source of TV network service. In the late 1940's, many television broadcasters could not get video network channels from AT&T for network television programs, a serious handicap to a rapidly expanding TV industry. Accordingly, several television broadcasters undertook to construct microwave facilities to other cities where physical connection could be made with common carrier facilities. AT&T, however, had by tariff precluded the interconnection of private microwave systems with its own facilities. In its December 23, 1949, decision in the tariff investigation in Docket No. 8963, the FCC required AT&T, over its objection, to interconnect with TV broadcasters' private microwave facilities. Otherwise, it was pointed out, the Commission's grant of license to TV broadcasters for the operation of interim microwave video program transmission facilities would be rendered a nullity.

While the broadcasters had won the battle, it was AT&T which had nonetheless won the war. For previously, on February 20, 1948, the FCC had rather casually made a policy determination that frequencies for video network facilities would be only for service furnished by common carrier facilities, and that broadcasters operating interim private microwave stations would be required to abandon such systems whenever service became available from a common carrier, i.e. AT&T. Hence, while the broadcasters were accorded interim interconnection rights, the long term result was to give AT&T the green light to displace private microwave systems of broadcasters whenever it was ready, willing and able to do so.

¹⁴ LONG LINES DEPT., AT&T, OUR COMPANY AND HOW IT WORKS (1960).

In 1959, and again in 1960, the FCC liberalized its frequency licensing policy so as to permit private operation and ownership.¹⁵ This decision challenged both the policy and structure of the integrated common carriers. If a customer rented circuits, Bell's or General Telephone's suppliers accounted for the bulk of the related hardware. On the other hand, when users elected to build and operate their own microwave systems, they purchased equipment from independent manufacturers. Thus, the nonintegrated manufacturers competed with the Bell System without benefit of economies of integration. In so doing, the independent suppliers were literally circumventing the vertical structure of the common carriers.

Within months after the FCC's decision to liberalize microwave use, the Bell System reduced its communication rates by fifty to eighty-five percent in a tariff called Telpak.¹⁶ According to Bell, its rate reduction, which was restricted to volume users only (*i.e.*, those capable of building their own microwave systems), was justified by competitive necessity.¹⁷ But Telpak reopened the issue of efficiency and vertical integration. Had Bell cut rates because of inherent cost economies associated with its vertical structure, or had it cut rates without commensurate reduction in costs?

Part of the answer was provided by the Commission's 1963 Telegraph investigation. The FCC staff requested that Bell identify its fully allocated cost and return on seven of its interstate services. The study revealed striking differences between Bell's return on its competitive and noncompetitive services. In particular, Telpak generated a return of about 0.3 percent, a level generally deemed inadequate by both car-

¹⁵ Report and Order, *In re* Allocation of Frequencies in the Bands Above 890 Mc, 27 F.C.C. 359, 370-71 (1959). See also Memorandum Opinion and Order, *In re* Allocation of Frequencies in the Bands Above 890 Mc, 29 F.C.C. 825 (1960) (reaffirming 1959 position on petitions for reconsideration).

¹⁶ "Private Microwave systems make available large communication capacity at costs substantially below the charges for common carrier services furnished under other tariffs." Bell System Exhibit No. 5, Record at 3, Memorandum Opinion and Order, AT&T (TELPAK), 37 F.C.C. 1111 (1964). See SMALL BUSINESS ADMINISTRATION, A STUDY OF SMALL BUSINESS IN THE ELECTRONICS INDUSTRY 3 (1962). Seventy percent of noncarrier manufactured microwave systems was supplied by Motorola, Collins Radio, RCA, and General Electric. Motorola provided the largest share. For the size and profit status of a typical independent microwave supplier, see Record at 15-16, Report and Order, *In re* Allocation of Frequencies in the Bands Above 890 Mc, 27 F.C.C. 359 (1959) (testimony of Daniel E. Noble, Electronic Industries Ass'n):

1. Personnel—400-500 people
2. Engineering Budget—\$800,000
3. Gross Income—7-8 million dollars

¹⁷ Brief & Proposed Findings and Conclusions for Bell System Respondents at 20-21, Memorandum Opinion and Order, AT&T (TELPAK), 37 F.C.C. 1111 (1964).

riers and public utility bodies.¹⁸ Moreover, the evidence presented in the FCC's investigation suggested that Western Electric had not been the prime mover in the cost reassessment. According to testimony by the General Services Administration, the Bell System cut its leasing rates, and then pressured its manufacturing affiliates to lower equipment costs.¹⁹ Telpak prices, to be sure, had swung the cost advantage away from private microwave and back to the leased circuits. But Bell's seven-way cost study suggested that the Telpak discount was impelled not by economies internal to the integrated utility-supplier, but rather by conditions of market rivalry.

D. *Computer Message Forwarding—Switching and Data Attachments*

Computer systems can be programmed to switch message communications as well as to process data—a capability that directly challenges the conventional method of routing printed communications, *i.e.*, the torn-tape switching system. Although the torn-tape operation can be automated, computers are replacing the torn-tape switching manufacturing equipment provided by the common carriers. The computers achieve a fifty percent reduction in cost and close to a 200 percent increase in message output.²⁰ Indeed, computer competition has prompted the FCC to open a separate investigation.²¹

Again technology questions the impact of vertical integration on the diffusion of new technology. As noted, the carriers traditionally lease torn-tape relay equipment and private line circuits. These relay systems are now being replaced by equipment provided by nonintegrated manufacturers, in this case, suppliers of computer hardware. And again nonintegrated firms have taken the lead in the introduction of new switching technology.

A related case turns on the development of data attachments

¹⁸ Report of the Common Carrier Bureau of the FCC in the Telegraph Investigation, FCC Docket No. 14650, table 6-3. See also AT&T Exhibit 80, Record at 19, FCC Docket No. 14650:

If the market for Telpak had developed in a manner consistent with the forecast of the total bulk communication market, made at the time the service was introduced, the earnings ratio on a current cost basis during the study period would have been approximately 9.5%. On the basis of the actual market, developed during the period covered by this study, this ratio was about 5.5%.

¹⁹ See Exhibit No. 2, Record at 24, FCC Docket No. 14650 (testimony of Richard Gabel, General Services Admin.).

²⁰ " . . . AT&T is . . . unhappy that a lot of its automatic and manual mechanical switching equipment is being replaced by computers built by other manufacturers." *Chrysler's Computer Does the Talking Faster and Cheaper*, BUSINESS WEEK, Aug. 24, 1963, at 52, 53. See also Letter from Western Union to FCC regarding computer leasing and service arrangements, March 14, 1966.

²¹ Notice of Inquiry, *In re* Interdependence of Computer & Communication Services, 7 F.C.C.2d 11 (1966).

known as subsets or data modems. These devices enable business machines to send digital information in varying quantities over telephone lines. On the public telephone networks the carriers permit only subsets manufactured, supplied, or controlled by themselves. Equipment that does not fall into this category is termed "foreign," and carrier tariffs forbid their use or attachment to the dial-up network.

By contrast, the carriers have relaxed "foreign attachment" prohibitions on circuits supplied exclusively to business and government entities. The result is that the user is now presented with options for data sets in terms of their number, variety, and technical capability. These choices are not matched by carrier-provided data modems. Even this minimal market access has given an incentive to firms to invest in research and development and thereby introduce competitive, alternative solutions to the problems of data transmission. We submit that the rate of innovation of such equipment on leased lines stands as a tribute to the innovative energies of the nonintegrated firm.

E. *Conclusions*

These case studies suggest that a wave of new technology is now pressing major constituents of what we know as the communication industry.²² Yet, the technical decisions of the integrated carriers, as well as their receptivity to new processes, is open to serious question. In each of the above cases, the nonintegrated supplier challenged the technical status quo and pushed for the adaptation of new products and processes. It is our view that if the equipment market were opened to effective competition, the innovative process would be greatly encouraged, and ultimately consumers would reap the benefits of cheaper and better services.

IV

IMPLEMENTATION OF PUBLIC POLICY DECISIONS

A. *1949 Antitrust Complaint*

In 1949 the Department of Justice instituted a suit against AT&T and Western Electric, alleging violations of Sections 1 and 2 of the Sherman Act.²³ The Department charged that the defendants had conspired to restrain competition and had monopolized the manufacture and distribution of telephone equipment. It was alleged that Bell System operating companies, under the direction of AT&T, were compelled to purchase their equipment from Western Electric. The avowed purpose of the suit was to reinstate competition in the telephone equip-

²² Present terminal systems are also being challenged by cathode ray tube display units, acoustic couplers, concentrators, and the like.

²³ United States v. Western Elec. Co., Civil No. 17-49 (D.N.J., filed Feb. 14, 1949).

ment industry in order to bring lower prices to the Bell operating companies and, in turn, lower rates to the consuming public.

The relief sought was twofold. First, AT&T was to divest itself of Western Electric, which was to be divided into three competing entities. Second, the Bell operating companies were to procure their equipment by competitive bids. AT&T denied the allegations generally and contended that Western Electric provided equipment to the operating companies at lower costs than its competitors could provide. Bell also submitted that telephone rates to the consumer would rise if Western Electric were divorced from AT&T.

The consent decree ultimately entered granted neither of the remedies sought.²⁴ Western Electric was neither divorced from the system nor dismembered;²⁵ the Bell operating companies were not required to procure their equipment through competitive bidding. Thus, Western Electric remained, for all practical purposes, the sole manufacturer and supplier for Bell telephone companies.

B. *The Private Microwave Decision*

The economies of microwave operations and the growth of bulk or volume communication requirements prompted major firms to consider acquiring private radio relay systems. By the mid-1950's, the FCC found itself besieged by applications from potential users of private microwave. Manufacturers, retailers, railroads, and trucking carriers sought FCC frequency assignments without restriction, contending that the supply of frequencies in the microwave region was virtually unlimited and that rationing was no longer required to conserve the radio spectrum.²⁶

The common carrier industry strenuously opposed any change in the allocation policy. AT&T, the most articulate spokesman for the car-

²⁴ Consent Decree, *United States v. Western Elec. Co.*, Civil No. 17-49 (D.N.J., Jan. 24, 1956).

²⁵ See Answer at 14-15, *United States v. General Tel. & Electronics Corp.*, Civil No. 64-1912 (S.D.N.Y., filed June 19, 1964):

Defendants are informed and believe that an important factor leading the Department of Justice to consummate the Bell System consent decree was the existence of comprehensive regulation by both Federal and State government of telephone operating companies. Defendants are informed and believe that another factor leading to the approval by the Department of Justice of the Bell System consent decree was the determination that the vertical integration of the Bell System (consisting of the Bell System telephone operating companies, a telephone equipment manufacturing company, Western Electric Co., and a research laboratory, Bell Laboratories) was in the public interest because, among other reasons, it improved the quality and lowered the cost of telephone service, and increased the ability of the Bell System to assist in the national defense effort.

²⁶ Report and Order, *In re Allocation of Frequencies in the Bands Above 890 Mc*, 27 F.C.C. 359 (1959).

riers, contended that the frequency supply was limited and required careful allocation.²⁷ The carriers also argued that an FCC policy to promote private microwave would render economic harm to the communication industry and thus inhibit its ability to provide the nation's communication services.

When the Commission ruled in 1959 to open the spectrum to general use, the Bell System contended that satellite communications and the spectrum requirements thereof altered the premise upon which the FCC had promulgated its policy.²⁸ The Commission reopened the question and again adopted a liberalized licensing policy with respect to land microwave.²⁹ The decision, of course, represented a defeat for the common carrier industry.

C. *Communication Satellite Act of 1962*

The Communication Satellite Act of 1962³⁰ was born in controversy. Its legislative history depicts government agencies and private firms as both adversaries and allies. A major problem was the ownership, size, and composition of the company that would make the first commercial use of satellite techniques. The international common carriers, notably International Telephone and Telegraph, Radio Corporation of America, and AT&T, expressed willingness to establish a consortium limited to themselves.³¹ After an inquiry, the FCC concluded that satellite ownership should be limited to the international carriers, a decision opposed by some firms in the aerospace industry.³²

The Antitrust Division of the Department of Justice, by contrast, had argued that the ownership base should be broadened to include all interested equipment suppliers.³³ Relaxing its prior position in deference to the FCC, the Justice Department, apparently overruling the Antitrust Division, concluded that, if the independent suppliers were given competitive access to the consortium, ownership could be

²⁷ Record at 2218-19, Report and Order, *In re* Allocation of Frequencies in the Bands Above 890 Mc, 27 F.C.C. 359 (1959) (testimony of F.M. Ryan, AT&T).

²⁸ *Id.* at 16 (testimony of James B. Fisk).

²⁹ Memorandum Opinion and Order, *In re* Allocation of Frequencies in the Bands Above 890 Mc, 29 F.C.C. 825 (1960).

³⁰ 47 U.S.C. §§ 701-44 (1964).

³¹ Notice of Inquiry, Authorization of Commercially Operable Space Communications Systems, FCC Docket No. 14024, 26 Fed. Reg. 2880 (1961).

³² *Id.* See Comments of Lockheed Aircraft Corporation on Petition of General Electric, FCC Docket No. 14024. See also General Electric's Petition for Reconsideration, FCC Docket No. 14024.

³³ *Hearings on Antitrust Consent Decrees and the Television Broadcasting Industry Before the Antitrust Subcomm. of the House Comm. on the Judiciary*, 87th Cong., 1st Sess. (1961).

limited to the international carriers.³⁴ Thereafter, the carriers, under FCC sponsorship, agreed that communication hardware should be applied on a competitive bid basis.³⁵

Congress and the White House staff rejected both the FCC's and the Justice Department's approaches. The final legislation provided for a broad ownership base. Half of the consortium stock was to be owned by the general public and half by the international carriers. The statute permitted the nonintegrated equipment suppliers—General Electric, Lockheed, Hughes, and others—to own up to ten percent of the public half of the stock.³⁶

Congress insisted, as had the Justice Department, that the satellite corporation, Comsat, seek its wares on an openly competitive basis; the statute charges the FCC with the task of enforcing this mandate.³⁷ The Commission subsequently ruled that all subcontracting tiers must engage in competitive biddings. Moreover, the Commission's rules were held applicable to research and development as well as equipment contracts.³⁸

D. *The General Telephone Suit*

In June 1964 the Department of Justice sought to enjoin General Telephone and Electronics Corporation's proposed acquisition of California Water and Telephone Company, West Coast Telephone Company, Southwestern States Telephone Company, and Western Utilities Corporation.³⁹ The Department alleged that consummation of the acquisition would violate Section 7 of the Clayton Act⁴⁰ because:

Competitors of General Telephone and its subsidiaries may be foreclosed from selling products used in the furnishing of telephone services; and concentration . . . in the manufacture, distribution,

³⁴ *Hearings on Space Satellite Communications Before the Senate Subcomm. on Monopoly of the Select Comm. on Small Business*, 87th Cong., 1st Sess. 370 (1961).

³⁵ *Ad Hoc Carrier Comm. Report*, FCC Docket No. 14024, at 34.

AT&T has no present plans to furnish or offer to furnish any equipment, apparatus or supplies either directly or through any of its subsidiaries. However, Western Electric may offer communications components to the joint venture on a competitive basis

See also Response of American Cable & Radio (ITT) Corp. to para. 10 of the Supplemental Notice, FCC Docket No. 14024, at 32.

³⁶ Communication Satellite Act of 1962, 47 U.S.C. § 734(b) (1964).

³⁷ *Id.* § 721(c)(1).

³⁸ Communications Satellite Procurement Regulations, FCC Docket No. 15123, 29 Fed. Reg. 345, 347 (1964).

³⁹ *United States v. General Tel. & Electronics Corp.*, Civil No. 64-1912 (S.D.N.Y., filed June 19, 1964).

⁴⁰ 15 U.S.C. § 18 (1964).

and sale of products used in the furnishing of such services may be increased to the detriment of actual and potential competition.⁴¹

The suit thus attempted to restrain the growth of vertical integration in the telephone industry and to preserve some degree of competition in its hardware segment.

GT&E contended that the market foreclosure could not possibly violate the Clayton Act if the relevant market embraced telecommunications equipment sold to all telephone operating companies. The companies to be acquired by GT&E accounted for about 0.8 percent of all equipment purchases.⁴² Limiting the relevant market to non-Bell telephone companies, according to GT&E, ignored the Bell consent decree of 1956. On November 15, 1966, the Justice Department dismissed the GT&E suit with this statement:

In view of the unique conditions of this industry where similar vertical integration exists of vastly greater size, the Department [of Justice] determined it would be inappropriate to prosecute its suit against a single company at this time.⁴³

E. Conclusions

Clearly, the AT&T consent decree typifies a public policy sanctioning the common ownership of private manufacturing activities. Bell's plea that its ownership of Western Electric yielded lower-cost telephone equipment was held a valid justification for insulating Western Electric's market from competitive access. In this sense the Justice Department embraced, implicitly or otherwise, the economies-of-integration postulate. Of course, by requiring Bell to make available its patent portfolio, the decree did make a gesture towards broadening the availa-

⁴¹ Complaint at 8, *United States v. General Tel. & Electronics Corp.*, Civil No. 64-1912 (S.D.N.Y., filed June 19, 1964).

⁴² See Answer at 4, *id.*

⁴³ *Wall Street Journal*, Nov. 15, 1966, at 32. After dismissal by the Justice Department, GT&E merged with Hawaiian Telephone Company and Northern Ohio Telephone Company. Thereupon ITT brought suit. Complaint at 9-10, *International Tel. & Tel. Corp. v. General Tel. & Electronics Corp.*, Civil No. 2754 (D. Hawaii, filed Oct. 18, 1967):

Plaintiff [ITT] has been and now is foreclosed from selling telephone equipment to the operating companies of the Bell System, the General System, and the UUI System except to the limited extent that particular products are not manufactured by the affiliated system companies. The foreclosure of the market available to plaintiff [ITT] has been severe and now threatens to become so substantial that plaintiff may be forced to withdraw from the business of manufacturing and selling telephone equipment in the United States. General Telephone operating companies, including Hawaiian, represent a substantial portion of plaintiff's actual and potential sales of telephone equipment which will be foreclosed by General Telephone unless appropriate injunctive relief is granted by this Court.

See also 34 TELECOMMUNICATION REP., Dec. 26, 1967, at 32.

bility of technical information and thereby towards fostering market entry.⁴⁴ But to the independent equipment supplier Western Electric's market remains generally impervious to entry.⁴⁵ Rather than promoting rivalry, the consent decree tended to induce the opposite result: the parallel integration of other telephone systems.⁴⁶

The Communication Satellite Act of 1962⁴⁷ typifies a public policy favoring the second market alternative: engrafting competitive bidding to the utility-supplier configuration. Under the Act the FCC is empowered to permit the terminal stations to be owned by Comsat alone, the international carriers alone, or a combination of each.⁴⁸ In December 1967 the Commission ruled that satellite earth stations would be subject to joint ownership between Comsat and the overseas carriers.⁴⁹ Fifty percent of the ground station ownership is assigned to Comsat; the remaining fifty percent is spread among the international carriers on the basis of use. Finally, Comsat acts as the manager for satellite terminals.

Whether competitive bidding is workable under these circumstances remains to be tested. Nonintegrated suppliers have voiced apprehension about their ability to gain market entry notwithstanding the competition bid rule.⁵⁰ In any event, as satellites come into domes-

⁴⁴ REPORT OF THE ANTITRUST SUBCOMM. OF THE HOUSE COMM. ON THE JUDICIARY PURSUANT TO H.R. 27, 86th Cong., 1st Sess. 107-20 (Comm. Print 1959).

⁴⁵ *Id.* at 106:

At the outset, it must be observed that nothing in the decree assures manufacturers of any opportunity whatever to supply directly the needs of the Bell operating companies or require a Bell operating company to buy any equipment competitively from any source other than Western Electric.

⁴⁶ See *The Impact of Two Historic Antitrust Decrees*, BUSINESS WEEK, Feb. 4, 1965, at 27. A GT&E spokesman stated:

Actually, the decision was very consoling to us, and presumably to Bell. It establishes once and for all, with the Justice Dept.'s blessing, that it's legitimate to have a manufacturing subsidiary.

⁴⁷ 47 U.S.C. §§ 701-44 (1964).

⁴⁸ *Id.* § 721(c)(7).

⁴⁹ Amendment of Part 25 of the Rules and Regulations with Respect to Ownership and Operation of Initial Earth Stations, FCC Docket No. 15735, Second Report and Order, Dec. 8, 1966.

⁵⁰ Reply Comments of Philco Corp. on Proposed Rule-Making or Formulation of General Policy, at 3, *In re* Ownership and Operation of Initial Earth Stations, 38 F.C.C. 1104 (1965):

Selection of Comsat would strengthen competition in the provision of communications services to the public since Comsat's sole objective is to the establishment of a satellite system on the most competitive basis. With no conflicting ownership interests in suppliers of equipment or in existing communications facilities, Comsat's self-interest lies in determined efforts to make satellite communications fully competitive through efficient service at minimum cost in a minimum amount of time.

tic use, a policy disparity between the domestic and the overseas equipment may become singularly embarrassing.⁵¹ With respect to the domestic communication apparatus, the FCC may not intervene between the utility and its affiliated manufacturer in terms of compelling competitive bidding; but with respect to the international equipment, it must by law intervene.

The remaining policy decisions—the 1949 Bell antitrust complaint, the 1960 private microwave decision, and the 1964 General Telephone antitrust complaint—premise the presentation and enhancement of competition in the equipment market. The result is that the FCC, the Justice Department, and Congress have pursued all three policy alternatives for the equipment industry simultaneously. Clearly, at least two of these courses of action, competition and vertical integration, are mutually exclusive. And the second policy option, the amalgam of integration and competition, appears unworkable.

If public policy in the equipment market is to assume some manner of consistency, it must choose between vertical integration and competition. The hardware market must be either opened or closed. It cannot long remain both, despite perennial attempts at redefining the relevant market in order to effect a facade of policy continuity.⁵² The evidence is persuasive that open market rivalry is a viable, realistic, and optimal aim for public policy. Vertical integration in the telephone industry persists as a major impediment to that goal.

V

IMPLEMENTING A POLICY FAVORING COMPETITION

Competition in the communication equipment market can be restored by implementing both a short-term and a long-term program. The short-term program would permit the retention of utility-owned

A carrier authorized to construct, own and operate an earth station would be responsible for the planning, development and design of the earth station and would also be responsible for preparation and evaluation of specifications for apparatus and equipment to be incorporated into the station. Such a carrier would be in a position to influence and control the procurement of such apparatus and equipment. Unless that carrier and its manufacturing subsidiaries are barred from furnishing that apparatus and equipment, it may be tempted to perform its planning, development, and design functions in such a way as to insure that its manufacturing subsidiary will be the supplier. Moreover, even if the planning, development and design functions are performed with complete objectivity, the carrier may be in a position to obtain an unfair competitive advantage on procurements of equipment for other earth stations. Either of these situations would prevent effective competition in the procurement of apparatus, equipment and services required for establishment and operation of earth stations.

⁵¹ Answer of Comsat to ABC petition for Domestic Satellite, *id.*

⁵² See Answer at 12-15, *United States v. General Tel. & Electronics Corp.*, Civil No. 64-1912 (S.D.N.Y., filed June 19, 1964). See pp. 460-61 *supra*.

manufacturing affiliates but require that some equipment be contracted out to nonintegrated suppliers. This contracting out, increased over time, would enable other firms to acquire expertise in the manufacturing of related communication apparatus. Of course, this recommendation would require that the common carriers make public their specifications so as to facilitate equipment compatibility.

The long-term program would seek the complete separation of utility and manufacturing interests. The burden of effecting the program would rest with the FCC acting through its powers under the antitrust laws. Specifically, Section 7 of the Clayton Act provides:

[N]o corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital . . . of another corporation engaged also in commerce, where in any line of commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.⁵³

This provision has been applied to vertical mergers.⁵⁴ Section 11 of the Act⁵⁵ expressly empowers the FCC to enforce compliance with sections 2, 3, 7, and 8, with respect to the carriers under its jurisdiction. Section 11 also expressly provides that the FCC may enforce its antitrust powers by ordering divestiture.

Since the Commission has never attempted to exercise its antitrust enforcement power, the scope of its authority has not yet been determined.⁵⁶ Consideration of the scope of the Commission's power in the

⁵³ 38 Stat. 731-32 (1914), as amended, 64 Stat. 1125-26 (1950), 15 U.S.C. § 18 (1964).

⁵⁴ *Brown Shoe Co. v. United States*, 370 U.S. 294 (1962).

⁵⁵ 15 U.S.C. § 21 (1964). Section 11 provides, in part:

That authority to enforce compliance with sections 2, 3, 7, and 8 of this Act by the persons respectively subject thereto is hereby vested . . . in the Federal Communications Commission where applicable to common carriers engaged in wire or radio communication or radio transmission of energy; . . . and in the Federal Trade Commission where applicable to all other character of commerce to be exercised as follows:

. . . . If upon such hearing the Commission or Board, as the case may be, shall be of the opinion that any of the provisions of said sections have been or are being violated, it shall make a report in writing, in which it shall state its findings as to the facts, and shall issue and cause to be served on such person an order requiring such person to cease and desist from such violations, and divest itself of the stock, or other share capital, or assets, held . . . contrary to the provisions of sections 7 and 8 of this Act.

⁶⁴ Stat. 1126-27 (1950), 15 U.S.C. § 21 (1964).

⁵⁶ In *In re Connecticut Water Co.*, 25 F.C.C. 1367 (1958), the Commission did list as one of the possible dispositive issues whether § 3 of the Clayton Act, 15 U.S.C. § 14 (1964), would be violated if the Commission granted a certain license. The case was decided, however, on an interpretation of the consent decree without reaching the Clayton Act question.

context of the Western Electric situation raises several questions. First, there are problems concerning the retroactive application of the Clayton Act, since the acquisition occurred in 1881, thirty-three years prior to the enactment of the Clayton Act in 1914. Second, since the 1956 consent decree left the integration of the Bell System intact, the vertical relationship has been approved. Finally, the critical question remains whether the Commission's authority extends to vertical mergers and therefore includes the power to divest AT&T of Western Electric.

A. *Retroactivity and the 1956 Consent Decree*

The problem of retroactivity involved in any attempt to divest AT&T of Western Electric is not as imposing as it may at first appear. In *United States v. E.I. DuPont de Nemours & Co.*,⁵⁷ the Supreme Court held that "the Government may proceed at any time that an acquisition may be said with reasonable probability to contain a threat that it may lead to a restraint of commerce or tend to create a monopoly of a line of commerce."⁵⁸ Between 1917 and 1919 DuPont acquired a twenty-three percent stock interest in General Motors. Not until 1949 did the Department of Justice challenge the combination under Section 7 of the Clayton Act. The defendants argued that only the acquisition could be attacked, and that therefore the subsequent use of the stock was beyond the reach of the Clayton Act. The Supreme Court rejected this contention, stating that the primary purpose of the Clayton Act is "to arrest apprehended consequences of intercorporate relationships before those relationships could work their evil, which may be at or any time after the acquisition, depending upon the circumstances of the particular case."⁵⁹ Any other interpretation would severely limit application of the Clayton Act. One corporation could acquire another and not immediately use its ownership of the acquired firm in an anti-competitive manner. Then, after the running of the statute of limitations, it could assert its power over the acquired firm to substantially lessen competition without fear of government intervention.⁶⁰

Although AT&T acquired Western Electric prior to the enactment of the Clayton Act, the *DuPont* case itself demonstrates that this distinction is irrelevant. The Supreme Court emphasized that the date of the occurrence of the anticompetitive effect is the crucial time.⁶¹

⁵⁷ 353 U.S. 586 (1957).

⁵⁸ *Id.* at 597 (emphasis added).

⁵⁹ *Id.* (emphasis added).

⁶⁰ *But see* Neal, *The Clayton Act and the Transamerica Case*, 5 STAN. L. REV. 179 (1953).

⁶¹ The same result follows under the Sherman Act. *See* Pan Am. World Airways v.

The consent decree of 1956, which concluded the antitrust suit brought by the United States in 1949 against the Bell System, likewise does not impede exercise of the FCC's power to divest AT&T of Western Electric. The consent decree terminated a Sherman Act suit; the Commission, when divesting Western Electric from Bell, necessarily enforces the Clayton Act.⁶² The umbrella thrown over the vertical integration of the Bell System by the consent decree means only that the common ownership is not a violation of the Sherman Act. It is fundamental to the interrelationship of the two antitrust statutes that the Clayton Act was designed to reach situations that had not ripened into Sherman Act violations.⁶³ Although the vertical structure of the Bell System has not been found to be a violation of the Sherman Act,⁶⁴ it has never been put to the lesser test of the Clayton Act.⁶⁵

Applying the Clayton Act to the vertical structure of the Bell System, then, would not constitute a retroactive application of legal proscriptions. Nor would it be incompatible with the terms of the 1956 consent decree.

B. *FCC Power To Order Divestiture of Vertically Integrated Suppliers*

Applying antitrust laws to regulated industries raises a complex problem. The FCC at best only indirectly regulates Western Electric.⁶⁶ Applying antitrust standards to a corporate entity that is regulated in part and unregulated in part only compounds complexity. The Commission's authority to enforce Section 7 of the Clayton Act can be interpreted in three ways. First, the scope of its power may be as broad as that of the Department of Justice or the Federal Trade Commission and extend to all forms of acquisitions, both horizontal and vertical.⁶⁷ Second, the power may extend only to horizontal mergers. Third, it may reach only vertical mergers.

United States, 371 U.S. 296 (1963); *United States v. Trans-Missouri Freight Assoc.*, 166 U.S. 290, 342 (1897).

⁶² The authority to enforce compliance with the substantive provisions of the Clayton Act is the only antitrust enforcement power available to the FCC. It has no power to enforce the Sherman Act as such.

⁶³ *Brown Shoe Co. v. United States*, 370 U.S. 294, 318 (1962).

⁶⁴ Consent Decree, *United States v. Western Elec. Co.*, Civil No. 17-49 (D.N.J., filed Jan. 24, 1956).

⁶⁵ The recent suit against the vertical integration of GT&E was based upon the Clayton Act, and in this respect is distinguishable from the situation in the *Western Electric* case.

⁶⁶ The absence of any pervasive regulatory scheme indicates that antitrust, rather than traditional regulation, may be the guiding principle in such a situation. See *Pan Am. World Airways v. United States*, 371 U.S. 296 (1963).

⁶⁷ A horizontal merger is a joining of competitors.

1. *Horizontal Mergers*

Section 221 of the Communications Act⁶⁸ states that two telephone companies wishing to consolidate may seek approval from the Commission. In reaching its decision, the Commission is to consider the public interest and the effect on telephone service. Commission approval of the transaction exempts the merger from all antitrust laws. The exemption brings the situation within the rationale of *McLean Trucking Co. v. United States*,⁶⁹ namely, that without Commission approval horizontal mergers would be subject to the antitrust laws. The *McLean* case held that the Interstate Commerce Commission was not compelled to disapprove a merger of trucking firms that violated the antitrust laws. Limiting ICC approval to those situations that do not violate the antitrust laws would render meaningless the exemption from antitrust application that flows from such approval. The Supreme Court recently reaffirmed this doctrine in *Seaboard Air Line Railroad v. United States*.⁷⁰ It must be remembered, however, that section 221 is not mandatory; the parties need not ask for approval.⁷¹

Section 222 of the Domestic Merger Act of 1943⁷² makes lawful the merger of domestic telegraph carriers upon Commission approval. The standard for approval is the public interest, and again Commission approval carries with it an exemption from the antitrust laws. Section 222 differs from section 221 in that telegraph carriers *must* follow its provisions. One of the primary objectives of the Domestic Merger Act was to allow Western Union and Postal Telegraph to merge; it was thought that otherwise the antitrust laws would prohibit the consolidation.⁷³ This Act deliberately repudiated the antitrust laws

⁶⁸ 47 U.S.C. § 221 (1964).

⁶⁹ 321 U.S. 67 (1944).

⁷⁰ 382 U.S. 154 (1965).

⁷¹ Apparently the Commission views its jurisdiction as limited to actual telephone operating companies. GT&E, which is merely a holding company, has never sought Commission common-carrier-type approval for acquisitions of telephone companies, and apparently none has ever been demanded by the Commission. The acquisition of operating companies by GT&E recently challenged by the Justice Department was not submitted to the FCC. Apparently GT&E has the best of two worlds with regard to horizontal mergers. If it is apprehensive of FCC reaction, the parent holding company will acquire the operating company, and only the antitrust enforcement by the Justice Department will remain an obstacle. If antitrust is the primary concern, then one of the subsidiary interstate operating companies will acquire the new firm, and the Commission could insulate the merger from antitrust possibilities under § 221.

⁷² 47 U.S.C. § 222 (1964).

⁷³ It is quite possible that the antitrust laws would not have prohibited the telegraph merger. Postal Telegraph was in dire financial straits. In *International Shoe Co. v. FTC*, 280 U.S. 291 (1930), the Supreme Court held that no violation of § 7 of the Clayton Act

as the standard for measuring a horizontal merger of two domestic telegraph carriers. Another purpose of the Act was to promote competition,⁷⁴ which, when coupled with the express repudiation of the antitrust laws, provides an interesting commentary on the latter's effectiveness in seeking their primary purpose of promoting competition.

Section 314 of the Communications Act in effect prohibits the merger or common ownership of an international radio carrier and an international cable or wire carrier, if the purpose or effect of such single ownership is to lessen competition substantially or to restrain commerce between any place within the United States and any place in a foreign country or to create a monopoly in any line of commerce.⁷⁵ The language of Section 7 of the Clayton Act is similar to that of Section 314 of the Communications Act.⁷⁶ In the so-called "*Three Circuits*" case,⁷⁷ however, the Supreme Court held:

What may substantially lessen competition in those areas where competition is the main reliance for regulation of the market cannot be automatically transplanted to areas in which active regulation is entrusted to an administrative agency; . . . what competition is and should be in such areas must be read in the light of the special considerations that have influenced Congress to make specific provision for the particular industry.⁷⁸

Thus, the standards of the antitrust laws do not themselves apply to the regulated international telecommunications industry, although the wording of the relevant standard is almost identical to the Clayton Act.

Under the Clayton Act a violation occurs if competition may be lessened in one line of commerce; the merger may fall even if competition as a whole has been improved.⁷⁹ In administering the Communications Act the "*Three Circuits*" case held that the Commission is to

had occurred where the acquired firm faced business failure. There is little doubt that Postal Telegraph was a "failing company" within the meaning of *International Shoe*. It was, in fact, on the verge of bankruptcy. H.R. REP. NO. 2664, 77th Cong., 2d Sess. 3-4 (1942).

⁷⁴ H.R. REP. NO. 2664, 77th Cong., 2d Sess. (1942).

⁷⁵ 47 U.S.C. § 314 (1964).

⁷⁶ Section 7 of the Clayton Act uses the phrase "where in any line of commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or tend to create a monopoly." 38 Stat. 731 (1914), as amended, 64 Stat. 1126 (1950), 15 U.S.C. § 18 (1964). Section 314 of the Communications Act applies when the "effect thereof may be to substantially lessen competition or to restrain commerce between any place in any State, Territory, or possession of the United States, . . . and any place in any foreign country, or unlawfully to create a monopoly in any line of commerce." 48 Stat. 1088 (1934), 47 U.S.C. § 314 (1964).

⁷⁷ FCC v. RCA Communications, 346 U.S. 86 (1953).

⁷⁸ *Id.* at 98.

⁷⁹ *Brown Shoe Co. v. United States*, 370 U.S. 294, 325 (1962).

consider the broad spectrum of international communications. If a merger will further competition in that perspective, then no violation occurs, even if competition is stifled between the particular routes in question.

Section 214 is the remaining provision of the Communications Act pertaining to horizontal mergers. Although the section does not primarily govern mergers, it does require Commission approval for the acquisition of a "line" by a carrier.⁸⁰ Furthermore, the section is expressly inapplicable if the transaction has been approved under sections 221 or 222, the sections primarily designed to govern mergers. But by the general terms of its language, it applies residually to all mergers not governed by the three specific provisions previously discussed: "No carrier . . . shall acquire . . . any line . . . unless and until there shall first have been obtained from the Commission a certificate [of] public convenience and necessity . . ."⁸¹ It may also apply to a merger within the scope of section 221, for, as we have seen, that section is not mandatory and is invoked purely at the discretion of the interested carriers.

The distinguishing feature of section 214 is that no exemption from the antitrust laws flows from Commission approval; the implication is that the antitrust laws, including Section 7 of the Clayton Act, apply to such mergers. The language of the Supreme Court in the "*Three Circuits*" case, however, indicates that an accommodation must be made between regulatory statutes and the antitrust laws. Indeed, one leading commentator builds the doctrine of primary jurisdiction in the antitrust field on the "*Three Circuits*" case.⁸² While this may be the correct view with regard to international communications—after all, section 214 applies specifically to the same policies as do the antitrust laws—one should be wary of applying the principle to other elements of the communications industry. No matter how the word "accommodation" is defined, in this context it means at least that the antitrust laws do not apply per se. But if the antitrust laws do not apply at all to mergers in the communication industry, it is difficult to understand the necessity for the express exemption from antitrust violations found in sections 221 and 222. Indeed, since section 221 is not mandatory and

⁸⁰ A "line" is defined in § 214 as "any channel of communication established by the use of appropriate equipment, other than a channel of communication established by the interconnection of two or more existing channels." 57 Stat. 11 (1943), 47 U.S.C. § 214(a) (1964).

⁸¹ 57 Stat. 11 (1943), 47 U.S.C. § 214(a) (1964).

⁸² § K. DAVIS, ADMINISTRATIVE LAW § 19.05 (1958). Another authority has stated that no cases applying primary jurisdiction to the communications industry exist. STAFF OF SUBCOMM. NO. 5 OF THE HOUSE COMM. ON THE JUDICIARY, 84TH CONG., 2D SESS., JUDICIAL DOCTRINE OF PRIMARY JURISDICTION AS APPLIED IN ANTITRUST SUITS (1956).

section 214 applies if section 221 is not invoked, the accommodation theory renders the exemption in section 221 particularly superfluous. And yet, the only significant distinction between the two provisions with respect to merger policy is the exemption in section 221.

That the antitrust laws may apply to a horizontal merger also governed by section 214 does not necessarily mean the FCC has the duty to enforce Section 7 of the Clayton Act. If the FCC does not enforce section 7, the Department of Justice still has that obligation. Furthermore, since no exemption flows from Commission approval under this provision, the Department of Justice would not be precluded from attacking an FCC-approved merger.

Finally, the FCC has no obligation to measure section 214 mergers by antitrust standards, because the section contains its own standard, *i.e.*, public convenience and necessity. While competitive effects may well be relevant to a determination of public convenience and necessity,⁸³ other factors must also be considered. In the so-called "*Mt. Gilead*" case,⁸⁴ the Commission granted a section 214 authorization to Western Union to discontinue its operation of six telegraph offices in Ohio and to substitute agency offices to be operated by the local telephone companies operating in each community. The labor organization representing Western Union employees challenged the Commission's action. The district court stated that the central question was "whether the Commission has power to approve an agreement between a telegraph company and a telephone company, if the effect of the agreement is to lessen competition between the companies in a given locality."⁸⁵ The Commission stoutly maintained it did. The district court skirted the question by holding that the agreement was not invalid under the antitrust law as then interpreted.⁸⁶ The fact remains, however, that the FCC contended that it could issue a section 214 authorization despite a violation of the antitrust laws. The Commission, too, must believe it enforces section 214 by applying its express standards, and not by enforcing the antitrust laws.

When deciding the fate of all horizontal mergers, the FCC applies the tests contained in the Communications Act, not the test of the Clayton Act. For the most part, these standards are stated in terms of public interest, which may include competitive effects but which em-

⁸³ *Minneapolis & St. Louis Ry. v. United States*, 361 U.S. 173, 186 (1959).

⁸⁴ *Western Union Division, Commercial Telegraphers' Union v. United States*, 87 F. Supp. 324 (D.D.C.), *aff'd per curiam*, 338 U.S. 864 (1949).

⁸⁵ *Id.* at 337.

⁸⁶ *Id.*

brace other factors as well. Indeed, in sections 221 and 222, FCC approval suspends the antitrust laws. The one merger-governing provision that specifically demands competitive effects as the relevant standard, section 314, has been interpreted by the Supreme Court to be broader than the Clayton Act.⁸⁷ Thus, the FCC does not merely enforce the Clayton Act when considering horizontal mergers under its special merger powers.

2. Vertical Mergers

Since the FCC already has special powers, often broader than the Clayton Act, to regulate horizontal mergers, the express provision by which it can enforce the Clayton Act itself implies that the FCC has power to regulate vertical arrangements. Otherwise the express grant of Clayton Act powers would be relatively meaningless. Further, the Clayton Act entrusts to the FCC enforcement of all its operative sections, *i.e.*, sections 2 and 3, as well as 7. Section 2, the Robinson-Patman Act,⁸⁸ prohibits discriminatory pricing practices and controls customer-supplier relationships. Although much of the pricing policies of carriers is subject to traditional concepts of regulation, some areas of carrier pricing remain beyond the scope of the Commission's non-antitrust authority.⁸⁹ Section 3,⁹⁰ dealing with tying agreements and exclusive dealing arrangements, likewise concerns vertical relationships.⁹¹ Since the Commission's authority extends to the full reach of sections 2 and 3, there seems to be no reason the power should not extend to the full reach of section 7, including vertical relationships.

This interpretation is not novel. As long ago as 1921, just seven years after the enactment of the Clayton Act, a court of appeals reached the same conclusion. The Interstate Commerce Commission has the same authority as the FCC to enforce the Clayton Act provisions against the common carriers under its jurisdiction.⁹² A railroad car company, a noncarrier, had included in its contract to supply cars to a railroad carrier a provision prohibiting the carrier from using cars supplied by other companies. The Federal Trade Commission entered a cease and

⁸⁷ FCC v. RCA Communications, 346 U.S. 86 (1953).

⁸⁸ 15 U.S.C. § 13(a) (1964).

⁸⁹ For example, the Commission considers itself without authority to regulate the charges imposed by one carrier upon other carriers for leased facilities. *Hearings on H.R. 10270 Before the House Comm. on Interstate and Foreign Commerce*, 88th Cong., 2d Sess. 24 (1964).

⁹⁰ 15 U.S.C. § 14 (1964).

⁹¹ The Commission has indicated in testimony before Congress that it has § 3 power. *Hearings on H.R. 10270, supra* note 89, at 25. See also note 56 *supra*.

⁹² Clayton Act § 11, 15 U.S.C. § 21(a) (1964).

desist order against this practice, viewing the contract provision as a violation of Section 3 of the Clayton Act. The court of appeals, in *Fruit Growers' Express, Inc. v. FTC*,⁹³ held that the FTC has no power to enter such an order, because authority over this transaction rests with the Interstate Commerce Commission. The court said:

The words "where applicable to common carriers," in section 11 of the Clayton Act, must mean that where the facts involve common carriers, or the business of common carriers, then the jurisdiction is solely in the Interstate Commerce Commission. The action complained of involved common carriers and tended to very greatly affect their business.⁹⁴

The FCC could be substituted for the ICC in that case without a change in the decision. Furthermore, if section 7 had been involved, instead of section 3, the result would have been unchanged. But the necessary implication is that the FCC enjoys the full reach of the Clayton Act in proscribing discriminatory pricing, tying agreements, exclusive dealing arrangements, and, most significant, anticompetitive vertical mergers.

CONCLUSION

Among the three policy alternatives for structuring the communication equipment market—competition, vertical integration, and a mixture of the two—competition best serves the public interest. It not only meets the test of economic efficiency, but also marks a return to a unified, consistent policy. Divestiture, then, is but a step to reaching these goals. Clearly, Bell's divestiture of Western Electric would not resolve General Telephone's vertical relationship, nor would it settle the ambivalence of policy in the satellite equipment market.⁹⁵ It is, however, a necessary ingredient to a broader policy endeavor.

⁹³ 274 F. 205 (7th Cir. 1921), *appeal dismissed*, 261 U.S. 629 (1923).

⁹⁴ *Id.* at 207.

⁹⁵ See 32 TELECOMMUNICATIONS REP., March 28, 1966, at 1.