DEFINING THE RELEVANT PRODUCT MARKET OF THE NEW VIDEO TECHNOLOGIES

I. Introduction

The impact of the new video technologies¹—the various systems that deliver programming onto the television screen—has been widely debated. The following statement by Judge Bazelon illustrates one side of this debate:

For the first time in fifty years of regulation, we stand on the brink of major changes in the regulatory framework governing telecommunications. New technologies call into question time worn assumptions about the need for government regulation.²

The other side of this debate is illustrated by the following comment by Professor Compaine:

It may help us to keep in mind three basic points about technological change. First, the impact of new technology on society comes about through adoption, not by the mere fact of its creation. Second, technological change takes place through a rather orderly and predictable series of steps. Finally, these steps take time. Thus, major change casts a long shadow before it, allowing those who have followed the process with some attentiveness to make appropriate adaptive responses.³

The first statement reflects the belief that the delivery of extra channels of television programming by the new video technologies largely eliminates the need for government regulation.⁴ It is argued

¹ The term new video technologies encompasses a number of systems: Cable Television (CATV), see infra notes 54-92 and accompanying text; Subscription Television (STV), see infra notes 93-104 and accompanying text; Multipoint Distribution Services (MDS), see infra notes 105-15 and accompanying text; Satellite Master Antenna Television (SMATV), see infra notes 116-26 and accompanying text; Direct Broadcast Satellites (DBS), see infra notes 127-39 and accompanying text; Low Power Television (LPTV), see infra notes 140-58 and accompanying text; and Video Cassette Recorders (VCRs), see infra notes 159-67 and accompanying text.

² Bazelon, The First Amendment and the "New Media"—New Directions in Regulating Tele-communications, 31 Fed. Com. L.J. 201, 202 (1979) (Senior Judge of the United States Court of Appeals for the District of Columbia Circuit).

³ Majority Staff of the Subcomm. On National Telecommunications, Consumer Protection and Finance of the House Comm. On Energy and Commerce, 97th Cong., 1st Sess., Telecommunications in Transition: The Status of Competition in the Telecommunications Industry 27 (Comm. Print 1981) (statement of Prof. Benjamin N. Compaine of Harvard University) [hereinafter cited as Telecommunications in Transition].

⁴ Bazelon, supra note 2, at 202.

that the rationale which originally led to government regulation⁵—scarcity of space on the airwaves—no longer applies in view of the greatly increased video choices available to consumers today.

The second statement, on the other hand, reflects a more cautious view. It suggests that the potential of the new video technologies has yet to be realized by the public and may not be realized for some time.⁶ This view implies that the conditions that led to the decision to regulate television and video technologies have not yet disappeared in spite of the capabilities of these technologies.

Underlying these differing perspectives are questions concerning the extent to which, and the ways in which, the public uses these video technologies. How many people actually use them? Do people distinguish between the various new video technologies? Do they distinguish between these technologies and broadcast television? Have other media or other forms of entertainment been affected by these video technologies? If so, how?

A useful way of developing answers to such questions is by defining the relevant product market of these new technologies. A relevant product market is a concept used in antitrust analysis.⁷ A particular product's relevant market includes the substitute products consumers could buy in lieu of their regular items if a producer of a good raised prices above competitive levels or gave inferior service.⁸ For example, if a company which produced product A raised its price significantly, consumers might stop buying product A and switch to product B. If that were the case, products A and B would be in the same product market. However, if consumers did not switch to product B, then product B would not be in the same product market as product A. Unless an action is illegal per se under the antitrust laws,⁹ the court must analyze a firm's relevant product and relevant geographic markets¹⁰ in order to assess whether there has

⁵ The decision to regulate the airwaves "was attributable to certain basic facts about radio as a means of communication—its facilities are limited; they are not available to all who may wish to use them; the radio spectrum simply is not large enough to accommodate everybody." National Broadcasting Co. v. United States, 319 U.S. 190, 213 (1943).

⁶ Telecommunications in Transition, supra note 3, at 27.

⁷ Harris and Jorde, Antitrust Market Definition: An Integrated Approach, 72 Calif. L. Rev. 1 (1984). See also L. Sullivan, Handbook of the Law of Antitrust 41-74 (1977).

⁸ Sullivan, supra note 7, at 41-74.

⁹ A particular restraint of trade is per se illegal where experience with the restraint "enables the Court to predict that the rule of reason will condemn it." Arizona v. Maricopa County Medical Soc'y, 457 U.S. 332, 344 (1982). In these situations the Court applies a "conclusive presumption that the restraint is unreasonable." Id. "Among the practices which the courts have heretofore deemed to be unlawful are price fixing, division of markets, group boycotts, and tying arrangements.' " Id. n.15 (citation omitted).

¹⁰ A relevant geographic market is "the area of effective competition in the known line of commerce... in which the seller operates, and to which the purchasers can practica-

been an antitrust violation. The more products deemed substitutable, the larger the relevant product market is and the smaller a producer's share of it is likely to be. Conversely, the narrower the product market, the greater a producer's share of it.

Commentators often consider the definition of a relevant product market to be the most crucial step in antitrust litigation because it delineates the parameters within which the rest of the antitrust analysis takes place. 11 Similarly, the definition of a relevant product market has important implications when considering the appropriate governmental regulatory policy controlling an industry. 12 A traditional rationale for government regulation of a particular market is the protection of the public.¹³ Where there is a concentration of market power there is a threat to the public in the form of unjust prices and discriminatory business practices¹⁴ and some form of governmental regulation is often appropriate. However, where there is active competition the market should be loosely regulated, if at all.15 Realistically and accurately defining the relevant product market of the new video technologies, therefore, is important for arriving at just resolutions of antitrust litigation among video companies and for developing appropriate regulatory policy for these technologies. It is expected that antitrust litigation among companies that are involved in these technologies will increase significantly in the near future.

The Federal Communications Commission (FCC) has deregulated the pay television industry significantly during the past few years, ¹⁶ favoring marketplace forces rather than government regulation "as the means to determine how and what telecommunications services are made available to the public." Accompanying this move towards deregulation is an interest in applying antitrust law to

bly turn for supplies." United States v. Phil. Nat'l Bank, 374 U.S. 321, 359 (1963) (emphasis in original).

¹¹ See infra note 42 and accompanying text. See also Handler, Twenty-Five Years of Antitrust (Twenty-Fifth Annual Antitrust Review), 73 COLUM. L. REV. 415, 453 (1973).

¹² TELECOMMUNICATIONS IN TRANSITION, supra note 3, at 41.

¹⁸ Id. at 31. See also Cities Service Gas Co. v. Peerless Oil & Gas Co., 340 U.S. 179 (1950); Nebbia v. New York, 291 U.S. 502 (1934); Peel Splint Coal Co. v. State, 36 W. Va. 802, 15 S.E. 1000 (1892).

¹⁴ Telecommunications in Transition, supra note 3, at 31.

¹⁵ Id. at 34-35: "Deregulation can be a positive force to stimulate competition where sufficient rivalry between numbers of strong suppliers exists or is likely to emerge quickly."

¹⁶ See infra notes 81-83, 100-03 and accompanying text.

^{17 &}quot;FCC Sets Forth Proposals for Amending Communications Act," FCC press release, Report No. 3068, issued September 17, 1981. The chairman of the FCC has proposed abandoning the public trusteeship of broadcast television in favor of a deregulated marketplace. Fowler and Brenner, A Marketplace Approach to Broadcast Regulation, 60 Tex. L. Rev. 207 (1982).

define anticompetitive behavior. 18 One commentator believes that the FCC's deregulation of these new video technologies will lead companies to seek relief in the courts under antitrust laws for the redress they would have previously sought from the FCC.¹⁹ Antitrust issues have already surfaced in litigation involving cable television system operators²⁰ and in proposed mergers of companies that supply programming to pay television system operators.²¹ In deciding whether there is liability under the antitrust laws in such cases, courts must necessarily arrive at a definition of the relevant product market of these technologies.

In addition to FCC deregulation, the recently passed Cable Communications Policy Act of 1984²² (Cable Act of 1984) calls upon the FCC to make regulations authorizing "a franchising authority to regulate rates for the provision of basic cable service in circumstances in which a cable system is not subject to effective competition."23 The Act gives the FCC the responsibility of defining effective competition²⁴ as well as establishing standards for rate

¹⁸ See Amendment of the Commission's Rules Relative to Elimination of the Prohibition on Common Ownership of Cable Television Systems and National Television Networks, 47 Fed. Reg. 39,212, 39,218-19 (1982) (Commissioner Dawson, concurring) [hereinafter Elimination of Common Ownership Prohibition]. Ms. Dawson called for the development of the definition of a relevant product market of cable television and broadcast television networks and for a standardized measure of concentration in order to identify the point at which concentration in the market becomes detrimental to the public interest.

¹⁹ Botein, New Communications Technology: The Emerging Antitrust Agenda, 3 COMM/ENT L.J. 685, 699 (1982).

²⁰ Satellite Television & Associated Resources v. Continental Cablevision of Va., 1982-2 Trade Cas. (CCH) ¶ 64,733 (E.D. Va. 1982), aff'd, 714 F.2d 351 (4th Cir. 1983), cert. denied, 104 S. Ct. 1285 (1984), discussed infra notes 44-50 and accompanying text.

²¹ The Justice Department approved a merger between Showtime and Movie Channel, the second and fourth largest companies in the premium programming field. In October, 1983, the Cable News Network (CNN) bought out Satellite News Channel (SNC), CNN's only challenger in the cable news programming business. The Justice Department is currently evaluating whether a plan by Home Box Office, CBS and Columbia Pictures to form a new movie production company would violate antitrust laws. For a discussion of these mergers, see Price and Nadel, Antitrust Issues in the New Video Media, 3 CARDOZO ARTS & ENT. L.J. 27 (1984).

²² Cable Act of 1984, Pub. L. No. 98-549, 1984 U.S. Code Cong. & Ad. News (98) Stat.) 2779 (to be codified at 47 U.S.C. § 601).

28 Id. at 2788 (to be codified at 47 U.S.C. § 623(b)(1)).

²⁴ Id. (to be codified at 47 U.S.C. § 623(b)(2)(A)). The legislative history of the Cable Act of 1984 provides guidance as to how the FCC should go about defining "effective competition." The House Report stated:

In determining whether [a] cable system is subject to effective competition for the purpose of regulation of basic cable service, the FCC should consider the number and nature of services provided, compared with the number and nature of services available from alternative sources and, if so, at what price. In establishing the necessary regulations, the FCC should establish objective nationwide criteria which are readily applicable for determining on a community-by-community basis whether a cable system is subject to effective competition. Such standards should apply on a community-by-community basis since the presence nationwide of various telecommunications services does

regulation.²⁵ How the FCC defines effective competition greatly affects whether local governments, who are often the franchising authorities, will be able to regulate the rates cable television systems charge their customers. Thus, if the FCC finds that there is effective competition in a community, the cable operator is free to decide what he will charge customers. On the other hand, if the FCC finds that a cable operator is not subject to effective competition, then the franchising authority has the power to determine what the operator will charge his customers. The Cable Act of 1984, requiring the FCC to determine the criteria for "effective competition" for cable systems, is clearly seeking to have the FCC establish something akin to a definition of cable television's product market.²⁶

This Note will consider the inherent problems in defining the relevant product market(s) of the new video technologies. The judicial standard for defining a relevant product market will be considered first. The new video technologies will then be discussed to determine whether they are part of a single product market or whether there are several smaller product markets. Two government reports which consider the extent to which these new video technologies are a part of a broader entertainment market will also be discussed. From these analyses, conclusions will be reached concerning the difficulties in formulating a market definition in this field. To the extent possible, suggestions as to the scope of the product market will also be set forth.

not speak to the availability of such services in a particular community. . . . Regulations should specify objective criteria to avoid the need for an independent examination of the status of competition on a community-by-community basis.

H.R. Rep. No. 934, 98th Cong., 2d Sess. 66, reprinted in 1984 U.S. Code Cong. & Ad. News 4655, 4703.

The FCC has sought comment on two approaches for defining "effective competition." One would look to the availability of off-the-air (television broadcast) signals in the cable system's community. If there were a certain number of stations that could be received, there would be effective competition. The second approach would take into account other video technologies, assessing whether they are available in a community and the degree to which they are competitive with cable. *In re* Amendment of Parts 1, 63, and 76 of the Commission's Rules to Implement the Provisions of the Cable Communications Policy Act of 1984, Notice of Proposed Rule Making, MM Docket No. 84-1296, at 13-17 (Dec. 11, 1984) [hereinafter cited as *In re* Amendment of Parts 1, 63, and 76].

²⁵ Cable Act of 1984, 1984 U.S. Code Cong. & Ad. News (98th Stat.) 2788 (to be codified at 47 U.S.C. § 623(b)(2)(B)). See In re Amendment of Parts 1, 63, and 76, supra note 24.

²⁶ Interestingly, the Supreme Court has equated a firm's relevant product market with those areas in which it is in "effective competition" with other companies. Brown Shoe Co. v. United States, 370 U.S. 294, 324 (1962) (citing United States v. E.I. du Pont de Nemours & Co., 353 U.S. 586, 593 (1957)). See also infra notes 27-30 and accompanying text.

II. JUDICIAL DEFINITION OF A RELEVANT PRODUCT MARKET,

The Supreme Court stated the standard to be used for determining the scope of a relevant product market in *Brown Shoe Co. v. United States.*²⁷ The Court adopted a two-tiered approach for ascertaining whether two merging firms were in "effective competition."²⁸ The Court stated that "[t]he outer boundaries of a product market are determined by the reasonable interchangeability of use or the cross-elasticity of demand between the product itself and substitutes for it."²⁹ The Court noted that:

within this broad market, well-defined submarkets may exist which, in themselves, constitute product markets for antitrust purposes . . . [depending on such factors as] industry or public recognition of the submarket as a separate economic entity, the product's peculiar characteristics and uses, unique production facilities, distinct customers, distinct prices, sensitivity to price changes, and specialized vendors. 30

The Court further stated, in *United States v. Grinnell Corp.*, ³¹ that this product market definition applies in determining antitrust violations brought under the Clayton Act³² and the Sherman Act. ³³

Commentators have noted that although the *Brown Shoe* standard may be sound, the Court often applied it in an outcome oriented manner which enabled it to side with the government.³⁴ For example, in *United States v. Continental Can Co.*,³⁵ the Court determined that glass bottles and metal cans were part of the same product market although they had different physical characteristics, were priced differently, and did not have any immediate price responsiveness to each other.³⁶ This enabled the Court to find that the pro-

^{27 370} U.S. 294 (1962).

²⁸ Id. at 324-25.

²⁹ *Id.* at 325 (footnote omitted). The Court added that "cross-elasticity of production facilities may also be an important factor in defining a product market." *Id.* at 325 n.42.

³⁰ Id. at 325 (construing du Pont, 353 U.S. at 593-95).

^{31 384} U.S. 563 (1966).

^{32 15} U.S.C. §§ 12-27 (1982).

^{33 15} U.S.C. §§ 1-7 (1982).

³⁴ One commentator has stated that the Court's application of the *Brown Shoe* standard has enabled the government to "snatch victory from the jaws of the defeat." Robinson, *Recent Antitrust Developments 1982*, 4 CARDOZO L. REV. 551, 555 (1983). See also Handler, supra note 11, at 455-56.

^{35 378} U.S. 441 (1964).

³⁶ Id. at 453-57. The Court held that the interindustry competition between glass and metal containers is sufficient to warrant treating as a relevant product market the combined glass and metal container industries and all end uses for which they compete. There may be some end uses for which glass and metal do not and could not compete, but complete interindustry overlap need not be shown.

posed merger between Continental Can and Hazel-Atlas Glass Co. was in violation of Section 7 of the Clayton Act.³⁷ In *United States v. Aluminum Co. of America*,³⁸ however, the Court found insulated aluminum conductors to be in a separate sub-market from insulated copper conductors even though both products were sold for the same use—to conduct electricity.³⁹ This finding enabled the Court to reject a merger between Alcoa and the Rome Cable Corporation because the Court was able to conclude that the proposed merger would reduce competition in the aluminum industry.⁴⁰

Attempts in lower courts to define product markets in antitrust cases have been similarly inconsistent.⁴¹ Typically, the judge is either convinced by the plaintiff that the product market is small and the economic concentration great or he will be convinced by the defendant that the product market is large and the economic concentration insignificant.⁴² This idiosyncratic process has led Professor Stigler to label the typical antitrust case "an almost impudent exercise in economic gerrymandering."

The definition of the product market was at issue in Satellite Television & Associated Resources v. Continental Cablevision of Virginia, Inc., 44 a recent antitrust case between two cable television companies. One cable television company sued a competing cable company, contending that the competitor's contract with its customers contained an exclusivity provision which violated antitrust laws. 45 The district

Id. at 457.

³⁷ Id. at 461 (construing 15 U.S.C. § 18 (n.d.)).

^{38 377} U.S. 271 (1964).

³⁹ Id. at 273-77.

⁴⁰ *Id.* at 277, 280-81. The Court found that although Rome Cable primarily produced copper conductor, it also produced aluminum conductor. The Court determined that the aluminum Rome produced, combined with that which Alcoa produced, would result in a reduction of competition in the aluminum conductor market.

⁴¹ Harris and Jorde, Market Definition in the Merger Guidelines: Implications for Antitrust Enforcement, 71 Calif. L. Rev. 464 (1983). Compare, e.g., United States v. Paramount Pictures, Inc., 334 U.S. 131 (1948) (First run pictures are a separate market) with United States v. Columbia Pictures Corp., 189 F. Supp. 153 (S.D.N.Y. 1960) (feature films are not a separate market); Kennecott Copper Corp., 78 F.T.C. 744 (1971) (coal is a market), aff'd, 467 F.2d 67 (10th Cir. 1972), cert. denied, 416 U.S. 909 (1974) with United States v. General Dynamics Corp., 341 F. Supp. 534 (N.D. Ill. 1972), aff'd on other grounds 415 U.S. 486 (1974) (coal is not a market). In part, such inconsistent results could be attributed to the fact that relevant product market definition depends on the antitrust issues to be analyzed. Harris and Jorde, supra note 7, at 43 n.130 (citing Schmalensee, On the Use of Economic Models in Antitrust: The Realemon Case, 127 U. Pa. L. Rev. 994, 1010 (1979)).

⁴² Harris and Jorde, supra note 41, at 464.

⁴³ Id. at 464 (quoting Stigler, The Economists and the Problems of Monopoly, 72 Am. ECON. A. PROC., May 1982, at 1, 8).

^{44 1982-2} Trade Cas. (CCH) ¶ 64,733 (E.D. Va. 1982), aff'd, 714 F.2d 351 (4th Cir. 1983), cert. denied, 104 S. Ct. 1285 (1984).

⁴⁵ The exclusivity provision at issue was one in which Continental gave apartment owners wanting cable for their apartment buildings two options: either pay for the ex-

court found that "cinema, broadcast television, video disks and cassettes, and other types of leisure and entertainment-related businesses for customers who live in both single-family dwellings and in apartment houses"46 were in cable television's relevant product market. Thus defined, the court held that the exclusivity provision in question did not violate antitrust laws because the defendant lacked the requisite share of market power.⁴⁷ The plaintiff did not dispute the definition of the relevant product market on appeal but contended that the delivery of pay television services to apartment dwellers was a sub-market within this product market and that within this sub-market there was an illegal concentration of market power.⁴⁸ It based its contention on the fact that defendant's exclusivity provision excluded only other pay television companies.⁴⁹ A panel of the Fourth Circuit found that the contractual provision was not sufficient proof that pay television was a distinct sub-market and affirmed the district court's decision.⁵⁰

In 1982, the Justice Department issued merger guidelines in which it stated the way in which it would go about establishing the size of a relevant product market.⁵¹ The guidelines consider two factors: how many buyers would shift to other products in response to a 5% price increase in a product⁵² and whether "a firm has ex-

pense of wiring their buildings for cable or give Continental exclusive pay television rights to their apartment houses. 714 F.2d at 354.

defined the market so broadly in view of the fact that other courts, when deciding cases in the entertainment and, more specifically, cable areas, have generally defined the product market more narrowly. For example, college football television broadcasts, NCAA v. Board of Regents, 104 S. Ct. 2948 (1984); championship boxing, International Boxing Club of New York, Inc. v. United States, 358 U.S. 242 (1958); and first-run motion pictures, Paramount Pictures, 334 U.S. 131 (1948), have been found to be separate product markets. In the cable television programming area, a court recently found "the market for the purchase and sale of programming by companies like HBO and Showtime for telecast over cable television networks to be at least arguably sufficiently distinct from the purchase and sale of programming for broadcast over the major networks or in movie theatres" Crimpers Promotions, Inc. v. Home Box Office, Inc., 554 F. Supp. 838, 848 (S.D.N.Y. 1982), aff d, 724 F.2d 290 (2d Cir. 1983), cert. denied, 104 S. Ct. 3536 (1984). Similarly, in United States v. Columbia Pictures Indus., 507 F. Supp. 412, 422-24 (S.D.N.Y. 1980), the court described in detail a pay television program market.

^{47 1982-2} Trade Cas (CCH) § 64,733. The district court noted that to prevail on a claim that defendant's contracts were an illegal monopolization under § 2 of the Sherman Act, plaintiff had to show initially that "defendant had monopoly power in the relevant market or that there was a probability that defendant would achieve that monopoly power." Having defined the market broadly, the court found that plaintiff was not able to show that defendant had such power as to constitute a threat of monopolizing the market.

^{48 714} F.2d at 355-56.

⁴⁹ Id. at 356.

⁵⁰ Id. at 356-57.

^{51 47} Fed. Reg. 28,493 (1982) (to be codified at 15 C.F.R. § 18).

^{52 47} Fed. Reg. 28,495 (1982).

isting productive and distributive facilities that could easily and economically be used to produce and sell the relevant product within six months in response to a small but significant and non-transitory increase in price. . . ."⁵³

An examination of the various new video technologies will now be discussed in an attempt to ascertain the extent to which they are in the same relevant product market.

III. THE NEW VIDEO TECHNOLOGIES

A. Cable Television

Cable television systems originated in the late 1940's as a device for improving television reception in areas which had difficulty receiving broadcast television signals because of distance or mountainous terrain.⁵⁴ In a basic cable system, antennas placed on top of towers receive broadcast signals. These signals are amplified and then sent by a network of wire cables⁵⁵ to the subscribers' homes. There, either a transformer or a converter matches the signals to a frequency that the subscriber's television set can receive.⁵⁶

Currently, cable television is available to 76%⁵⁷ of America's households with television and somewhat less than half of them subscribe to it.⁵⁸ Recent technological advances enable cable systems to deliver over 100 channels of television⁵⁹ and to provide the following forms of video information: VHF and UHF television,⁶⁰ distant over-the-air broadcast signals imported by

⁵⁸ Id. These market definition procedures have been criticized by Harris and Jorde for being inconsistent with commercial reality and for being biased in the direction of constantly expanding markets. Harris and Jorde, *supra* note 41.

⁵⁴ The Development of Video Technology, 25 N.Y.L. Sch. L. Rev. 789, 794 n.40 (1980) [hereinafter cited as Video Technology] (citing R. Coll and M. Botein, Cable Television—Tapping the Potential 15-16 (1972)).

⁵⁵ These cables are called coaxial cables. "A coaxial cable includes a first metal conductor which is surrounded by a second metal conductor. The two conductors are separated from each other by insulation. A coaxial cable is less susceptible than other transmission techniques to interference from other sources of electromagnetic radiation." Id. at 794 n.44 (citing L. Gross, See/Hear: An Introduction to Broadcasting 336 (1979)).

⁵⁶ Id. at 794 n.45 (citing W. Baer, and M. Botein, L. Johnson, C. Pilnick, M. Price and R. Yin, Cable Television: Franchising Considerations 3 (1974)).

⁵⁷ N.Y. Times, Apr. 26, 1984, at A22, col. 5 (Letter to the Editor by William B. Finneran, Chairman, New York State Commission on Cable Television).

⁵⁸ Friendly, 2 Decisions Cause Confusion on Cable-TV Rules, N.Y. Times, July 19, 1984, at C19, col. 1.

⁵⁹ Stern, Krasnow and Senkowski, The New Video Marketplace and the Search for a Coherent Regulatory Philosophy, 32 CATH. U.L. REV. 529, 551 (1983) [hereinafter cited as Stern].
60 VHF (very high frequency) and UHF (ultra high frequency) television designations

the cable system,⁶¹ textual information,⁶² pay or advertiser supported cable channels,⁶³ and programs which originate locally such as public or governmental access channels. In addition, cable systems are able to deliver teletex and videotex.⁶⁴ Subscribers to cable systems pay an installation fee and a relatively modest monthly fee for the basic service.⁶⁵ If consumers decide to subscribe to a premium programming service,⁶⁶ they pay an additional charge to the basic monthly fee.⁶⁷

The FCC's policies with regard to cable television have vacillated. Initially, the Commission declined to exercise jurisdiction over the technology.⁶⁸ However, eight years after this decision, the FCC became concerned that cable systems would have an ad-

refer to local over-the-air television broadcasting channels. VHF channels are channels 2-13. UHF channels are channels 14-67.

VHF channels have certain technical and historical advantages over UHF channels. Technically, UHF channels require more power and antenna height than VHF channels to cover the same geographic area. Historically, VHF channels were the first to be licensed and tended to carry the more popular programming. As a result, the public largely ignored UHF channels, and UHF stations have had to struggle to be profitable. W.K. Jones, Cases and Materials on Electronic Mass Media 4-6 (2d ed. 1979).

⁶¹ These signals are offered by local advertiser-supported broadcast stations and are transmitted by cable operators throughout the country. *See, e.g.*, United States v. Southwestern Cable Co., 392 U.S. 157, 163-64 (1968).

62 Video, audio, and textual information is delivered over cable channels. Newspapers have contracted to supply such services. See Stern, supra note 59, at 551-52.

68 Premium services, such as HBO, charge subscribers a monthly subscription fee on top of the monthly charge for "basic" cable service. See infra notes 66-67 and accompanying text. "Basic" service channels, such as ESPN, are largely supported by advertisers although they may receive some money from the standard monthly charge for cable service. The Home Video & Cable Yearbook 1982-83, at 52-57.

64 Teletex and videotex disseminate textual and graphic information for display on television screens. Teletex refers to information that is distributed only one way, such as from the cable system operator to the viewer. Videotex refers to two-way interaction. The cable operator is able to deliver information and the viewer is able to respond. See Note, Videotex: A Welcome New Technology or an Orwellian Threat to Privacy, 2 CARDOZO ARTS & ENT. L.J. 287, 287-88 (1983). Besides delivery by cable, teletex can be delivered by MDS, LPTV, conventional broadcast television, and DBS. Videotex can be delivered by MDS and via telephone lines. Thus, regarding the delivery of videotex, cable and MDS may be in the same product market as the telephone companies since both technologies are capable of delivering it. At present, cable operators are curtailing their investment in videotex because consumers have not been significantly responding to it (at least to the degree necessary for it to be economically feasible). For example, three-quarters of the subscribers to QUBE, Warner-Amex's videotex system, do not participate in any of the programming that makes use of videotex. Smith, Two-Way Cable TV Falters: Programs Cut for QUBE as Viewers Lag, N.Y. Times, March 28, 1984, at C25, col. 1. The public's poor response to videotex seems to be another way in which they are not making full use of cable's capabilities.

65 In 1984 the average monthly fee for basic service was \$7.94. Broadcasting Cablecasting Yearbook 1984, at D3.

⁶⁶ These services generally show a mix of recent first-run feature films, encore presentations (films they had shown as features months earlier), entertainment specials, and sports events. *Columbia Pictures Indus.*, 507 F. Supp. at 417.

67 See 1982-83 YEARBOOK, supra note 63, at 65-68 (various fee arrangements used by the premium services listed).

the premium services listed).

68 Frontier Broadcasting Co. v. Collier & Krummel, 24 F.C.C. 251 (1958) (FCC re-

verse impact on local broadcast television stations, thus, it issued regulations regarding cable systems. These regulations required cable systems to carry all local broadcast television stations upon request⁶⁹ and prohibited cable systems from importing distant broadcast signals unless the cable systems could demonstrate that this action was in the public interest.⁷⁰ The Supreme Court, in *United States v. Southwestern Cable Co.*,⁷¹ held that the FCC had jurisdiction to make these regulations since they were "reasonably ancillary to the effective performance of the Commission's various responsibilities for the regulation of television broadcasting." FCC regulations seriously hampered cable's development during much of the 1970's.⁷³

However, since the late 1970's, cable has been significantly deregulated as a result of court decisions⁷⁴ and the FCC's own initiative.⁷⁵ In *Home Box Office, Inc. v. FCC*,⁷⁶ the Court of Appeals for the District of Columbia Circuit struck down the FCC's "antisiphoning" rules which prohibited pay cable channels from showing recent films and sports events.⁷⁷ In *FCC v. Midwest Video Corp.*,⁷⁸ the Supreme Court held that the FCC may not regulate cable systems as common carriers.⁷⁹ Therefore, the FCC had no authority to require cable operators to provide channels for access by public, educational, local governmental, and leased-access users.⁸⁰ In 1980, the FCC on its own initiative eliminated restrictions that limited the number of distant television signals that cable systems may distribute to their subscribers.⁸¹ In this same decision, the FCC removed syndicated program exclusivity

fused to regulate cable TV, arguing that it is not a common carrier within the meaning of § 3(h) of the Communications Act of 1934).

⁶⁹ In re Amendment of Subpart L, Part 91, Second Report and Order, 2 F.C.C.2d 725-46 (1966).

⁷⁰ Id. at 776.

^{71 392} U.S. 157 (1968).

⁷² Id. at 178.

⁷³ TELECOMMUNICATIONS IN TRANSITION, supra note 3, at 252-54.

⁷⁴ See infra notes 76-80 and accompanying text.

⁷⁵ See infra notes 81-83 and accompanying text.

⁷⁶ 567 F.2d 9 (D.C. Cir.), cert. denied, 43 U.S. 829 (1977).

⁷⁷ 567 F.2d at 13. The FCC had originally adopted these rules to prevent cable stations from outbidding free broadcast stations for popular program material.

^{78 440} U.S. 689 (1979).

⁷⁹ Id. at 708-09. "A common carrier service in the communications context is one that 'makes a public offering to provide [communications facilities] whereby all members of the public who choose to employ such facilities may communicate or transmit intelligence of their own design and choosing." Id. at 701 (citations omitted).

⁸¹ CATV Syndicated Program Exclusivity Rules, Report and Order, 79 F.C.C.2d 663 (1980), aff'd, Malrite Television of N.Y. v. FCC, 652 F.2d 1140 (2d Cir.), cert. denied subnom. Nat'l Ass'n of Broadcasters, 454 U.S. 1143 (1981).

rules which had required cable systems to delete certain programs from distant signals distributed to subscribers.⁸² The FCC has also recently proposed elimination of restrictions on the ownership of cable systems by conventional broadcast networks.⁸³

Another change in the regulation of cable systems occurred with the passage of the Cable Act of 1984.⁸⁴ This Act replaced many state and local regulations of cable systems, in areas such as renewal procedures⁸⁵ and rate regulation,⁸⁶ with a set of national policies.

The FCC's deregulation of cable systems appears to have been spurred by the perception that competition would cause a broad range of ideas to be communicated over the television screen, in effect, what regulation had accomplished in the past. Future history has validated this perception as cable television and other new video technologies now enable the delivery of many additional channels of programming into the home.⁸⁷

It appears, however, that viewers are only utilizing a small portion of the choices available to them. A study released by Television Audience Assessment, Inc.⁸⁸ revealed that "'cable subscribers watched two more channels than nonsubscribers.'"⁸⁹ Viewers tend to watch channels offering sports and movies and independent broadcast stations brought from distant cities.⁹⁰ Although cable provides the technological capability to deliver more than one hundred channels of programming, subscribers are not interested in such an abundance of choices.⁹¹ They tend to watch network broadcast stations or stations that carry pro-

⁸² Id. at 665.

⁸³ Elimination of Common Ownership Prohibition, 47 Fed. Reg. 39,212 (1982). Specifically, the FCC is proposing to delete 47 C.F.R. § 76.501(a)(1) (1983). See 47 Fed. Reg. at 39,215-17. This regulation provides:

⁽A) No cable television system (including all parties under common control) shall carry the signal of any television broadcast station if such system directly or indirectly owns, operates, controls or has an interest in: (1) A national television network (such as ABC, CBS, or NBC).

⁴⁷ C.F.R. § 76.501(a)(1) (1983).

⁸⁴ Cable Act of 1984, 1984 U.S. Code Cong. & Ad. News (98 Stat.) 2780-2801 (to be codified at 47 U.S.C. §§ 601-639).

⁸⁵ Id. at 2791-93 (to be codified at 47 U.S.C. § 626).

⁸⁶ Id. at 2788-89 (to be codified at 47 U.S.C. § 623).

⁸⁷ See 47 Fed. Reg. 39,215-17 (1982).

⁸⁸ Smith, Specialized Choices in Cable TV Dwindling, N.Y. Times, Nov. 24, 1983, at A1, col. 4.

⁸⁹ Id. at C22, col. 1.

⁹⁰ Id. A study conducted by Warner-Amex contained similar findings. The study found that subscribers typically used only 9 channels when they were offered between 30 and 70 channels of programming. Friendly, supra note 58, at C19.

⁹¹ Smith, supra note 88, at C22.

gramming that is similar to that of the network stations. Subscribers do not consider low budget local or specialized cable channels to be substitutes for network broadcast television. Therefore, such specialized channels might be in a separate product market from the market of the network channels. Moreover, the results of this study indicate that video technologies that provide fewer channels than cable can be competitive with cable and therefore, they would have to be considered to be in cable's product market.

B. Subscription Television

Subscription television (STV) delivers one channel⁹³ of programming through the transmission of a broadcast signal which is scrambled at the site of transmission and is then unscrambled by a device that is attached to the subscriber's television set.94 Typically, the programming that is offered is similar to premium programming on cable television: movies, sports events, and entertainment specials.95 Although STV is a more expensive service than cable, 96 it is a system that can be built relatively quickly, enabling the greatest immediate coverage of a geographic area of all the video signal delivery systems.⁹⁷ Since the first pay television service that enters a market has a competitive advantage, 98 STV is competitive with other video technologies despite its liabilities of higher cost and one channel capability. One reason for this advantage is that subscribers to alternate video technologies often think they are subscribing to cable systems.99 In other words, subscribers do not take into consideration the particular technology that delivers the pay channel(s) to their television screen. Rather, subscribers often group the various technologies together, focusing mainly on the delivery of extra channel(s) to

⁹² Id.

⁹³ A new decoder may soon be tested which would be capable of delivering more than one channel. Stern, *supra* note 59, at 533 n.9 (citation omitted).

⁹⁴ Video Technology, supra note 54, at 796.

⁹⁵ In re Amendment of Part 73 of the Commission's Rules and Regulations in Regard to Section 73.642(a)(3) and Other Aspects of STV Service, Third Report and Order, 90 F.C.C.2d 341 (1982) [hereinafter cited as 1982 Amendment of Part 73].

⁹⁶ In 1981, the installation fee varied from \$30 to \$100, and the average monthly charge to customers was \$19.95 per month. *Id.* at 345.

⁹⁷ In re Amendment of Part 73 of the Commission's Rules and Regulations in regard to Section 73.642(a)(3) and other aspects of the Subscription Television Service, Further Notice of Proposed Rule Making, 88 F.C.C.2d 213, 239 (1981) [hereinafter cited as 1981 Amendment of Part 73].

⁹⁸ When STV Precedes Cable, CABLE TELEVISION BUSINESS, Feb. 15, 1983, at 77.

⁹⁹ Salesmen who have tried to sell cable service to people who already were STV subscribers have often been told by the subscribers that they already had cable service. *Id.*

the home for a monthly fee. This implies that pay television technologies may be in the same product market because consumers do not differentiate between them.

The FCC deregulated STV in 1982 by eliminating the "complement of four" and the "28 hour" rules. 101 The former rule had restricted STV operation to communities which had at least five commercial television stations, including STV. 102 Its elimination meant that STV service could enter many additional markets. The latter rule had required a STV station to broadcast at least 28 hours of advertiser-supported programming per week. 108 Its elimination now permits STV stations to deliver more premium programming to its subscribers since STV operators no longer are required to provide regular broadcast television programming. The elimination of these rules has made STV a more available and attractive option to consumers and, hence, a somewhat more viable service. 104

C. Multi-point Distribution Service

Multi-point Distribution Service (MDS) is a closed-circuit microwave system that transmits a signal to multiple fixed receiving points. The system consists of a fixed station that transmits signals on microwave frequencies toward fixed receivers by means of an omni-directional antenna—an antenna radiating evenly in a 360 degree pattern. The signal is intercepted by these receivers, decoded, converted to a lower frequency, and then transferred by coaxial cable to where it is displayed on an unused channel. Although it is the least costly of the new pay

¹⁰⁰ See 1982 Amendment of Part 73, supra note 95.

^{101 14}

^{102 &}quot;The 'complement of four' rule was [originally] adopted to assure that a pay service would not replace an existing free service or use an allocated but vacant channel which could otherwise be utilized by a conventional station, unless there was a minimum of four operating conventional services available." *Id.* at 346.

¹⁰³ Id. at 342. This rule was also originally promulgated to ensure the availability of conventional television programming, but unlike the "complement of four" rule, it ensured that there would be advertiser-supported broadcast programming on the same channel that would deliver STV service. Id. at 351.

¹⁰⁴ It is unclear whether STV service will be able to survive in the long run because of its competitive liabilities of single channel delivery and greater cost. See 1981 Amendment to Part 73, supra note 97, at 237-56 app. A. Between January and September of 1983, STV had a 32.5% drop in subscribership. The Home Video & Cable Report, No. 38 (1983).

¹⁰⁵ K. Glen, Report on Multi-point Distribution Service, FCC Network Inquiry Special Staff, Preliminary Report on Prospects for Additional Networks 60-62 (Jan. 1980).

¹⁰⁶ *Id*.

¹⁰⁷ Id.

television delivery services, MDS is hampered by a limited signal range, reception problems, and, until a year ago, it was only capable of delivering one channel of programming. A new MDS station costs approximately \$500,000 as compared to the estimated \$2,866,000 that a STV station costs and the much higher costs of a cable system. However, the range of transmission is limited to only twenty-five to thirty miles and the transmission can be interrupted by interfering objects, such as buildings or even foliage, resulting in poor reception. These problems led observers to speculate that MDS would never be able to compete successfully with cable but rather would be complementary to it—appropriate for areas that cable does not reach. In essence, MDS was considered by analysts to be in a different product market from cable.

In May 1983, however, the FCC adopted a proposal that would enable two MDS operators to offer multichannel service. This decision has led to a reconsideration of whether MDS systems could compete with cable systems. Although MDS systems would not be able to deliver as many channels of programming as modern cable systems, some analysts now believe that multichannel MDS systems will be competitive with cable systems. In other words, these multichannel MDS systems may now be in the same product market as cable.

In addition to delivering television signals, a MDS system is also able to transmit data. Therefore, companies that sell MDS technology for data transmission purposes might be considered to be in the same product market as companies that sell other technologies which transmit data, such as telephone systems.

D. Satellite Master Antenna Television

Satellite Master Antenna Television (SMATV) has been re-

¹⁰⁸ Id. at 64-65.

^{109 1981} Amendment of Part 73, supra note 97, at 238.

¹¹⁰ See Glen, supra note 105. See also Video Technology, supra note 54, at 802.

¹¹¹ Glen, supra note 105.

¹¹² Id.

¹¹⁸ Microband Corp. submitted one proposal and CBS and Contemporary Communications Corp. jointly submitted the other. Microband proposed installing multichannel and 2-way MDS service in the 50 largest American markets. The CBS/CCC proposal involved installation of multichannel MDS service in five cities: New York, Los Angeles, Chicago, Philadelphia and St. Louis. Moozakis, Getting Ready for Multichannel MDS, CABLE TELEVISION BUSINESS, March 1, 1983, at 40; Holsendolph, Radio-TV Expansion Approved by F.C.C., N.Y. Times, May 27, 1983, at A10, col. 1.

¹¹⁴ Moozakis, supra note 113, at 40.

¹¹⁵ Glen, supra note 105.

ferred to as "private cable," ¹¹⁶ because it uses the same technology as cable to deliver programming to its viewers. ¹¹⁷ The important difference is that SMATV reception systems are located entirely on private property, for example, in apartment complexes or private homes, while cable operators use public land and city streets to install their systems. ¹¹⁸

SMATV has been growing rapidly.¹¹⁹ Individual households are buying the eight to twelve foot satellite dishes which cost between \$3,000 and \$10,000 because they can then receive cable channels, including channels that provide direct premium programming.¹²⁰ It is estimated that almost one million households purchased satellite dishes in 1984, and recent sales have grown at a rate of 300% annually.¹²¹ SMATV is particularly attractive to people who live in areas where cable systems have not been installed, where there is no broadcast television reception, or the reception is poor.¹²²

The fact that SMATV systems do not use public land was determinative in a recent FCC decision. In the case In re Earth Satellite Communications, Inc., 123 the FCC held that local and state governments had no jurisdiction over SMATV systems because '[t]he program signals transmitted and the communication satellites that provide these signals to the receiver station of a SMATV system are inherently interstate in nature and subject to federal regulation and preemption."124 Critics have pointed out that the removal of local regulations from SMATV may mean that cable television entrepreneurs will not want to extend their systems to low income areas or to rural areas where relatively profitable residential complexes have already been wired with SMATV systems. 125 This critique implicitly views cable systems and SMATV systems as competing directly for customers and offering similar services, and therefore in the same product market. Also implicit in this view is the notion that the availability of cable

¹¹⁶ Stern, supra note 59, at 544.

¹¹⁷ Id.

¹¹⁸ New York State Comm'n on Cable Television v. F.C.C., 749 F.2d 804, 806 (D.C. Cir. 1984).

¹¹⁹ Fantel, Satellite Dish Vies with Cable, N.Y. Times, August 9, 1984, at C18, col. 1.

¹²⁰ Id.

¹²¹ Id.

¹²² Id.

^{128 95} F.C.C.2d 1223, recon. denied, FCC 84-206 (May 14, 1984), aff'd sub nom. New York State Comm'n on Cable Television v. FCC, 749 F.2d 804 (D.C. Cir. 1984).

^{124 95} F.C.C.2d at 1231 (citation omitted).

¹²⁵ See F.C.C. Ruling Called Barrier to Spread of Cable TV, N.Y. Times, Nov. 13, 1983, §1, at 47, col. 1.

television is a public benefit to a community, especially to low income and rural areas which have difficulty receiving broadcast television signals.

Therefore, it is important that governments have sufficient power to insure that cable systems will be made available. The Earth Satellite Communications decision will also mean that companies will not be willing to pay municipalities as much money for cable franchises as they have in the past. The cable companies, foreseeing that competition from SMATV systems will mean that they will not be able to attract as many subscribers, will consider a cable franchise to be worth less than it was previously valued. Therefore, they will not bid as much money for a franchise. 126

E. Direct Broadcast Satellites

A Direct Broadcast Satellite (DBS) System is a radio communication service in which signals from earth are retransmitted by high power geostationary¹²⁷ satellites for direct reception by small, relatively inexpensive earth terminals or disks.¹²⁸ This technology would enable the entire country to receive programming from a few satellites.¹²⁹ A DBS system would be expensive to build. Cost estimates have ranged from \$500 million to \$800 million.¹³⁰ The FCC authorized DBS service in 1982,¹³¹ concluding that DBS would be useful in providing television service to remote areas and in increasing the number of channels and the variety of programming available to consumers.¹⁸²

The first DBS type service was provided for residents of Indiana in November, 1983, by United Satellite Communications,

¹²⁶ For example, Cox Cable Communications dropped out of the bidding for the Baltimore cable franchise because of competitive video technologies such as SMATV which reduced the value of the franchise to it. Salmans, Cable Operators Take a Bruising, N.Y. Times, March 4, 1984, §3, at 1, col. 1.

¹²⁷ A geostationary satellite is one whose orbiting speed matches that of the earth rotating on its axis, thereby allowing the satellite's position with respect to the earth's surface to remain fixed. *Video Technology*, *supra* note 54, at 809.

¹²⁸ In re Inquiry into the Development of Regulatory Policy in Regard to DBS for the Period Following the 1983 Regional Administrative Radio Conference, 90 F.C.C.2d 676, 677 n.1 (1982) [hereinafter cited as Development of Regulatory Policy]; Rice, Regulation of Direct Broadcast Satellites: International Constraints and Domestic Options, 25 N.Y.L. Sch. L. Rev. 813 (1980). Interestingly, 40 years ago science fiction author Arthur C. Clarke wrote of such a method of delivering radio programming throughout the world. Clarke, Extra-Terrestrial Relays—Can Rocket Stations Give World-Wide Radio Coverage?, Wireless World, Oct. 1945, at 305.

¹²⁹ Stern, supra note 59, at 542.

¹³⁰ Sanger, Satellite Systems Seen in Doubt, N.Y. Times, July 12, 1984, at D1, col. 3, D5, col. 1

¹³¹ Development of Regulatory Policy, supra note 128.

Inc.¹³³ At a monthly cost of \$39.95 and an installation fee of \$300,¹³⁴ United Satellite provides its customers with five channels of programming: two movie channels, two variety channels, and one sports channel. Thus far, response to this service has been poor as only about 10,000 households have subscribed.¹³⁵

The high costs of starting a DBS system and the uncertainty of consumer response has led such companies as CBS and Western Union, which had initially applied for licenses to build DBS systems, to withdraw their applications. The possibility that DBS might not be a feasible commercial venture at present has led one industry analyst to term it a "technology in search of a marketplace."

Assuming DBS systems are built, it is unclear how consumers will respond to them. A report by Kalba Bowen, a cable television consultant, concluded that DBS will not have a great effect on broadcast or cable, but it could have a significantly negative impact on STV and MDS. At this point DBS is more expensive than the other pay television technologies. The cost currently mitigates against DBS' competitiveness. DBS, however, might be complementary to some video technologies because it can provide rural areas with multichannel television programming. It also might be competitive, and therefore in the same product market, with SMATV and older cable systems that are able to deliver only twelve channels of programming.

F. Low Power Television

Low power television (LPTV) service involves using conventional broadcast television technology at a lower effective radiated power. ¹⁴⁰ The idea for such service developed from the use

¹³³ Technically, this service is considered a quasi-DBS service because it is utilizing low power satellites rather than the high-power satellites that a true DBS system would use. Stern, *supra* note 59, at 543.

¹⁸⁴ Salmans, United Satellite to Start Home TV Dish Service, N.Y. Times, Nov. 15, 1983, at D1, col. 3.

¹³⁵ Sanger, supra note 130, at D5, col. 2.

¹³⁶ Id. at D1.

¹³⁷ Id. at D5, col. 1 (quoting John Reidy of Drexel Burnham Lambert & Co.)

¹³⁸ KALBA BOWEN ASSOCS., DBS: PRELIMINARY ASSESSMENT OF PROSPECTS AND POLICY ISSUES, (discussed in Development of Regulatory Policy, supra note 128, at 688-91). It is unclear whether Kalba Bowen Assocs. would still conclude that DBS will have a major negative impact on MDS's prospects in view of the FCC's approval of multichannel MDS. See supra notes 113-14 and accompanying text.

¹³⁹ It is estimated that subscribers would have to invest \$400 to \$600 for a dish to receive DBS signals and pay a monthly fee of as much as \$25. Sanger, *supra* note 130, at D5, col. 1

¹⁴⁰ Note, The FCC and Low Power Television: Managing the New Gold Rush, 36 RUTGERS L. REV. 233, 235 (1983) [hereinafter cited as FCC and LPTV]. The FCC has placed limits of

of television translators, devices which receive a television signal on one channel, amplify it, and then transmit it on another channel.¹⁴¹ Translators enable remote communities to receive television signals. In function they are similar to early cable systems but, unlike cable systems, they use airwaves to carry their signal instead of house-to-house wiring.¹⁴²

LPTV stations use the technology of translator systems but they are not limited to simply rebroadcasting other television signals. 143 Instead, they can originate programming from their own facilities or, as a result of improvements in satellite technology, they can obtain programming from sources other than conventional broadcast stations.144 In 1980, the FCC removed restrictions on translators, thereby permitting LPTV to be developed commercially.145 In doing so, it predicted that "[l]ow power broadcast television will be particularly important in serving sparsely settled areas, in other locations where full service broadcast stations and cable are not in a position to increase program choices, and in some densely populated urban areas where the cost of laying cable is extremely high."146 By removing these restrictions, the FCC enabled LPTV stations to become indistinguishable from regular broadcast television stations except for the fact that LPTV stations, because they operate at a lower power level, reach a more limited area.147

LPTV technology is inexpensive as compared to regular broadcasting technology. It costs approximately \$100,000 to build a LPTV station as opposed to the one to two million dollars it costs to build a conventional broadcast television station. The FCC received more than 12,000 applications for licenses to

up to 100 watts for VHF stations and 1,000 watts for UHF stations. An Inquiry into the Future Role of Lowpower Television Broadcasting and Television Translators in the National Telecommunications System, Notice of Proposed Rulemaking, 82 F.C.C.2d 47, 67-69 (1980) [hereinafter cited as LPTV Inquiry]. Conventional broadcast stations, in contrast, can be authorized to operate at power levels as high as 1,000,000 watts. FCC and LPTV at 235 n.7.

¹⁴¹ LPTV Inquiry, 82 F.C.C.2d 47, n.1 (1980).

¹⁴² Id.

¹⁴³ Id. at 54-55.

¹⁴⁴ Id. at 55-56.

¹⁴⁵ Id. at 54-65.

¹⁴⁶ Id. at 58.

¹⁴⁷ LPTV stations typically have a signal range of 10 to 20 miles as compared to conventional broadcast television stations which have a 40 to 65 mile signal range. Pollack, TV Licensing with a Lottery, N.Y. Times, Sept. 8, 1983, at D2, col. 1. LPTV's programming could reach an expanded area, however, through distribution of the signal by cable. FCC and LPTV, supra note 140, at 236.

¹⁴⁸ Pollack, supra note 147.

operate LPTV stations¹⁴⁹ due to the low costs involved. After a lengthy decision-making process as to how to award the licenses, the FCC began granting them in September 1983 through a preferred lottery system.¹⁵⁰ Under this system, applicants that can show fifty percent or greater minority ownership or own no other mass media properties have a preference.¹⁵¹

Licensees will be able to operate the stations on either a pay or advertiser-supported basis. ¹⁵² If operated on a pay basis, the station would, in effect, be a subscription television service. ¹⁵³ The initial signal would be scrambled and an unscrambling device would be attached to the subscriber's television. ¹⁵⁴ If the station were operated on an advertiser-supported basis, it would appear much like any other UHF or VHF television station. ¹⁵⁵

It is unclear what effect LPTV will have on other video technologies. Initially, it had been speculated that LPTV would enable remote communities to have their own stations and give minorities the right to own television stations for the first time. However, it is now speculated that the FCC's delay in granting licenses hurt the development of LPTV. To ne commentator stated that "the vacuum that low power may have been able to fill has been eaten away by other technologies." If such speculations are valid, it would imply that the other technologies are competitive with LPTV because viewers consider them to be substitutes for LPTV. Therefore, LPTV would be grouped in the same product market with many of the other video technologies previously discussed.

G. Videocassette Recorders

Videocassette Recorders (VCRs) are machines that can record and play back material from television or other video sources and play prerecorded cassettes.¹⁵⁹ Sales of VCRs have risen sharply over the past year¹⁶⁰ and have led to a new industry

¹⁴⁹ Id. at col. 1, 2. The applications were from diverse groups which included minorities, the elderly, labor unions and big business.

¹⁵⁰ See Pollack, supra note 147. For an explanation of the preferred lottery system, see FCC and LPTV, supra note 140, at 242 n.37.

¹⁵¹ FCC and LPTV, supra note 140, at 242 n.37.

¹⁵² LPTV Inquiry, 82 F.C.C.2d at 58-61 (1980).

¹⁵³ Id.

¹⁵⁴ Id. at 60.

¹⁵⁵ FCC and LPTV, supra note 140, at 233 n.2.

¹⁵⁶ Pollack, supra note 147.

¹⁵⁷ *Id*.

¹⁵⁸ Id. (quoting Booker Wade, Jr., a former FCC lawyer).

¹⁵⁹ The Video Revolution, NEWSWEEK, Aug. 6, 1984, at 50-57.

¹⁶⁰ *Id*.

in selling and renting videocassettes.¹⁶¹ More than seventeen million VCRs are currently in use, and it is estimated that nine and one half million will be sold in 1985.¹⁶²

VCRs do not offer the viewer added channels of television programming but enable the public to have more control over what it watches on the television screen. VCRs have the power to end the video technology owner's gatekeeping role, that is, the role of deciding what the public may see on the television screen and when it may see it.

While VCRs seem to complement some video media, they compete with others. Originally, it was speculated that VCRs would hurt movie theatres because people would prefer to watch films at home rather than go to the movies. However, this fear did not materialize as VCR owners often go to movie theatres to view films on their first run in order to decide whether they want to buy or rent the cassette of the film in the future. 163

On the other hand, VCRs appear to be competitive with cable and DBS. Analysts state that the rapid growth of VCRs has cut into cable revenues. However, which is become available on videocassettes approximately six months before they can be seen on a premium cable service, such as HBO, siving VCRs a competitive advantage. The popularity of VCRs has also contributed to the waning interest in establishing DBS systems. It is feared that consumers would rather buy VCRs than pay \$400 to \$600 for the rooftop satellite dishes that are necessary to receive DBS.

IV. EFFORTS TO DEFINE THE RELEVANT PRODUCT MARKET OF THE NEW VIDEO TECHNOLOGIES

Two reports, one issued by the FCC¹⁶⁸ and the other issued by a Congressional subcommittee, ¹⁶⁹ have considered whether

¹⁶¹ Id.

¹⁶² Lindsey, VCR's Bring Big Changes in Use of Leisure, N.Y. Times, Mar. 3, 1985, at A1, col. 2.

¹⁶³ Cf. Harmetz, Hollywood Thriving on Video-Cassette Boom, N.Y. Times, May 7, 1984, at A1, col. 3; Cf. Smith, The Theatres Fight Back, Cable Television Business, Jan. 1, 1984, at 90.

¹⁶⁴ Sanger, supra note 130, at D5, col. 1.

¹⁶⁵ Harmetz, supra note 163.

¹⁶⁶ Sanger, supra note 130.

¹⁶⁷ *Id*.

¹⁶⁸ J. Levy and F. Setzer, Office of Plans and Policy, FCC, Measurement of Concentration in Home Video Markets (Dec. 23, 1982). See infra notes 170-87 and accompanying text.

¹⁶⁹ Telecommunications in Transition, supra note 3. See infra notes 188-214 and accompanying text.

the video technologies described thus far are part of a larger product market. The findings of these reports will now be presented and discussed in order to illustrate the difficulty in defining the scope of the product market of the new video systems.

A. Measurement of Concentration in Home Video Markets 170

Measurement of Concentration in Home Video Markets was a report prepared by the FCC's Office of Plans and Policy in order to provide a framework for analyzing the FCC mass media ownership rules.¹⁷¹ Its purpose was to evaluate the proposed elimination of the broadcast network-cable system crossownership prohibition.¹⁷² The FCC had asked for "comment on both the product and geographic components of the market definition and on specific techniques for measuring concentration."¹⁷³

The authors of the report identified four separate markets involved in the supply of video information: a program delivery market consisting of the offering of television programming to the public through advertiser-supported or pay television stations;¹⁷⁴ a market consisting of the purchase of programming from a company that packages programs, for example, broadcast networks, syndicators, or cable program suppliers such as HBO or Showtime;¹⁷⁵ a market consisting of the packager's acquisition of programming from the program's producers;¹⁷⁶ and a market consisting of the television stations' sale of advertising time.¹⁷⁷ The authors focused on the first of these markets, the program delivery market, as it is this market in which consumers make

¹⁷⁰ LEVY AND SETZER, supra note 168.

¹⁷¹ Id. at Executive Summary. The FCC has "(1) 'concentration of control' rules which limit ownership on a national or regional level; and (2) 'one to a market' rules which limit common ownership within a single market." Id. at 108.

Nationally, Firms are prohibited from owning more than 12 AM, 12 FM and 12 television stations. Berg, Price Rise Expected for TV Outlets, N.Y. Times, April 1, 1985, at D1. There is also a prohibition against television broadcast network-cable system cross-ownership. Within a particular market, ownership of two television stations is prohibited as is cross-ownership of local television stations and cable systems. Levy and Setzer, supra note 168, at 108-14.

¹⁷² Elimination of Common Ownership Prohibition, 47 Fed. Reg. 39,212, 39,213 (1983).

¹⁷³ Id. at 39,217.

¹⁷⁴ LEVY AND SETZER, supra note 168, at 39.

¹⁷⁵ Id.

¹⁷⁶ Id. at 40. This market was at issue in United States v. Columbia Pictures Industries, Inc., 507 F. Supp. 412 (S.D.N.Y. 1980). For a detailed analysis of this case as well as the Justice Department's consideration of the Showtime-Movie Channel merger, see Price and Nadel, Antitrust Issues in the New Video Media, 3 CARDOZO ARTS & ENT. L.J. 27 (1984).

¹⁷⁷ LEVY AND SETZER, supra note 168, at 39, 40.

choices among sources of programming.178

The authors concluded that the program delivery market should be defined broadly. They stated that "[d]efining the market narrowly as consisting only of home video services, and excluding the audio, print, live, and other media will cause measures of concentration to underestimate drastically competition for audiences' attention in a more broadly defined information and entertainment market."180 The authors further asserted that "viewers perceive the video alternatives as very similar products, and that in fact at current prices the subscription video services provide very close substitutes for conventional over-the-air television for a large segment of the population,"181 and thus are part of the same product market. VCRs and motion pictures were less similar to broadcast television than subscription video services, but nevertheless they were included in the market. 182 The authors noted that highly imperfect substitutes can have a major effect on a product's marketability. 183 Thus, they included media such as books, newspapers, and radio as part of the same product market as broadcast television. However, books, newspapers, and radio are substitutes for television in only certain respects; for example, newspapers and radio provide news reporting services as does television.

This market definition was based on the apparent similarity between the alternate services to broadcast television and the various media services, rather than on empirical data demonstrating the degree to which consumers were willing to substitute one medium for another.¹⁸⁴ Acknowledging this fact, the authors stated that "[i]nformation on consumers' willingness to substitute one medium for another is unavailable, and since the price of advertiser-supported television and radio is zero, responses to a price change cannot be observed."¹⁸⁵ While consumer responses to a price change of advertiser-supported television cannot be observed, the consumer consumption can be

¹⁷⁸ Id. at 40.

¹⁷⁹ Id. at Executive Summary.

¹⁸⁰ *Id.* at 52, 53.

¹⁸¹ Id. at 51.

¹⁸² Id.

¹⁸³ Id. at 52.

¹⁸⁴ See infra notes 179-83 and accompanying text.

¹⁸⁵ LEVY AND SETZER, supra note 168, at 52.

¹⁸⁶ The authors note that consumers pay for the programming through higher prices for advertised products, but they conclude that "no positive price is associated with receipt of a specific advertiser-supported signal, so that price does not affect viewers' choices to receive the signal or not." *Id.* at 37 n.7.

observed in response to the introduction or price changes of other media in a community. For example, if the price of a pay television service were to increase dramatically, the number of its subscribers might be observed to fall and the number of viewers of advertiser-supported television might increase. In such a situation it would be possible to conclude that there was cross-elasticity between advertiser-supported television and pay channels. It would seem that data of this sort would be possible to obtain and, indeed, is necessary in order to define a product market accurately.

The authors also do not consider the possibility that there are distinct sub-markets within the broad product market they set forth. For purposes of antitrust analysis, even if it were established that the program delivery market was broad, there might be an illegal concentration of market power within a particular sub-market of the overall market. For example, if in a particular area of the country pay television was supplied by a cable operator and a MDS operator, it is possible that the two companies might form a sub-market within the broader entertainment market. In this event, any attempt they might make to merge should be disallowed.

B. Telecommunications in Transition: The Status of Competition in the Telecommunications Industry 188

Telecommunications in Transition was a report issued by the Congressional Subcommittee on Telecommunications, Consumer Protection and Finance. The report's purpose was "to assist the Members in deciding which [telecommunication] markets are competitive enough to warrant deregulation today, and which require additional competition before deregulation will advance the public interest." The report extensively analyzed the effect of the new video technologies on broadcast television in order to assess the extent to which broadcast television should continue to be regulated.

The report noted that the original rationale underlying regulation of broadcast television was the scarcity of channels on which programs could be broadcast to the public. This scarcity was a physical one: there is limited space on the frequency

¹⁸⁷ See supra notes 27-30 and accompanying text.

¹⁸⁸ TELECOMMUNICATIONS IN TRANSITION, supra note 3.

¹⁸⁹ Id. at iv.

¹⁹⁰ Id. at 26. See also supra note 5.

band for carrying broadcast television signals.¹⁹¹ The report concluded that despite the promises offered by the new video technologies to present new sources of video information to the public, they have not yet reached enough of the population to change the number of media channels that people have available to them.¹⁹² Therefore, broadcast television should not be deregulated.

In arriving at this conclusion, the report formulated a market definition.¹⁹³ It stated that "a video market has emerged, comprised of broadcast television, certain functions of cable television, movie theatres," MDS, STV, and VCRs. 194 The authors defined the market in this way, noting that it was a compromise between considering each media service to be in a separate market and viewing all sources of information to be in one market. 195 The report stated that this market definition "is largely based on some of the functional similarities in the ways in which the video information . . . is received." This market has two primary functions: a conduit function—the transmission of video information-and a content function—the control over what information is transmitted.¹⁹⁷ The report stated that within this market there are three primary conduits: conventional broadcast television, cable television, and movie theatres. 198 The other conduits—MDS, STV, DBS, and VCRs—were considered not to have sufficiently penetrated into American homes to be readily usable options for the reception of video information.¹⁹⁹ The report also found that conventional broadcast television is the dominant element within this video market200 and that there is little crosselasticity, or substitutability, between cable television and broadcast television.201 Therefore, the report concluded that cable television and broadcast television are in discrete sub-markets and

¹⁹¹ See supra note 5.

¹⁹² Telecommunications in Transition, supra note 3, at 26.

¹⁹³ Id. at 4. In arriving at its market definition, the report asked "a series of practical questions." These questions were similar in nature to the criteria examined in arriving at a product market definition in an antitrust case. A major difference, however, is that in formulating their market definition, the authors did not refer to a particular market, i.e. the scope of the product market of cable operators. In antitrust litigation, the scope of a product market is arrived at with reference to the particular market that is at issue in the litigation. Harris and Jorde, supra note 7, at 43.

¹⁹⁴ TELECOMMUNICATIONS IN TRANSITION, supra note 3, at 22.

¹⁹⁵ *Id*.

¹⁹⁶ Id.

¹⁹⁷ *Id*.

¹⁹⁸ Id. at 343.

¹⁹⁹ Id. at 25.

²⁰⁰ Id. at 22.

²⁰¹ Id. at 26.

100

there are strong barriers between these sub-markets.²⁰²

As with the FCC report previously discussed, Telecommunications in Transition formulated its definition of a product market without reference to the behavior of consumers. The report defined the product market as a video market. It based its determination upon the similarity of function among the components of the market, namely the transmission of video information,²⁰³ rather than on evidence of consumer behavior. The report attempted to show that consumers consider movies and broadcast television to be substitutable media by pointing out that people often ask: "Do you want to go to the movies or stay home and watch television?".204 An equally familiar question, however, might be, "Do you want to listen to the stereo or watch television?". Yet, it is not necessarily accurate to define a product market with regard to the specific senses that receive information or by a similarity in the way the information is transmitted since people receive information about the world through all of their senses.

It also appears that the authors of *Telecommunications in Transition* based their conclusions on information that is now outdated.²⁰⁵ Much of the information upon which it based its finding that there is a low degree of substitutability between broadcast and cable television came from a 1979 FCC report which predicted the economic impact that cable would have on broadcast television.²⁰⁶ This report concluded that cable television's penetration in television households would not exceed forty-eight percent and that its impact on local television audiences would not exceed ten percent.²⁰⁷ Cable television, however, has already penetrated forty-one percent of television households, and there are projections that by 1990 it will penetrate seventy-five to eighty percent of American households.²⁰⁸

Similarly, *Telecommunications in Transition* concluded that the other video technologies were insignificant.²⁰⁹ However, the ex-

209 See supra note 199 and accompanying text.

²⁰² Id. at 375.

²⁰³ Id. at 22.

²⁰⁴ Id. at 361.

²⁰⁵ See infra notes 206-12 and accompanying text.

²⁰⁶ In re Inquiry Into the Economic Relationship Between Television Broadcasting and Cable Television, 71 F.C.C.2d 632 (1979).

²⁰⁷ Id. at 672-74.

²⁰⁸ Cable TV Weighs Increase in Charges, N.Y. Times, Dec. 14, 1983, at D6, col. 1. Although recently cable systems have expanded at a slower pace, this seems to have occurred primarily because of the growth of other video technologies. See Salmans, Cable Operators Take a Bruising, N.Y. Times, Mar. 4, 1984, § 3, at 1, col. 2.

plosive growth of VCRs²¹⁰ and their effect on television viewing habits²¹¹ indicate that it is a technology that is becoming an increasingly significant factor in any market definition. It is also relevant to note that between 1977 and 1982, the television networks' share of the nation's viewers declined from 91% to 78% and it is anticipated that this decline will continue until it levels off in 1990 at between sixty and seventy percent.²¹² Much of this decline is attributed to the advent of pay television and VCRs. This decline indicates that the sub-market barriers between broadcast television and the new video technologies may no longer be as strong as *Telecommunications in Transition* suggests.

V. Conclusion

It appears that the video technologies described in this Note are part of the same relevant product market, but it is unclear how broad this market is. Studies indicate that consumers do not distinguish among the different technical methods that produce a picture on the television screen.²¹⁸ Similarly, consumers do not differentiate on the basis of their viewing habits between a technology that can deliver 100 channels of programming and a technology that can deliver five extra channels.²¹⁴ Within this video product market, cable television appears to be the dominant force in view of the number of people that subscribe to it and its technological potential.²¹⁵

The outer contours of this market are, however, less clear. The FCC's report, Measurement of Concentration, promulgated a broadly defined program delivery market which included broadcast television, radio, live entertainment performances, books, magazines, and newspapers. The Congressional report, Telecommunications in Transition, on the other hand, defined the market more narrowly, finding that a video market has developed which is comprised of the emerging video technologies, conventional broadcast television, and movie theatres. 217

These studies attempted to define the product market in

²¹⁰ See supra notes 159-67 and accompanying text.

²¹¹ See Lindsey, VCR's Bring Big Changes in Use of Leisure, N.Y. Times, Mar. 3, 1985, §1, at 1, col. 2.

²¹² Kerr, Has the Flight of the Networks' Audience Halted?, N.Y. Times, Jan. 1, 1984, §2, at 20, col. 2.

²¹⁸ See supra note 99 and accompanying text.

²¹⁴ See supra notes 88-92 and accompanying text.

²¹⁵ See supra notes 57-67 and accompanying text.

²¹⁶ See supra notes 181-83 and accompanying text.

²¹⁷ TELECOMMUNICATIONS IN TRANSITION, supra note 3, at 22.

terms of the nation as a whole. The relevant product market of these technologies can better be defined, however, on a case by case basis according to the community in which a particular video technology is located. Except for VCRs and DBS, all of the emerging video technologies deliver video signals to a limited area. Although these technologies can potentially deliver a wide range of programming to subscribers, it is only when an individual operator makes actual decisions as to the types of programs he will make available to consumers that the outer contours of the product market for that particular operator can be drawn. Consumers are not concerned with the means by which the program is delivered to their television screen, but they do care about what program appears on their screen. For consumers, the program is the product.

By analyzing the effect of programming on other services and products in the community, the relevant product market for a particular video technology in a particular community can be drawn. For example, if the video technology delivers news programs, it might be determined that the video technology is in the same product market as newspapers and radio. Similarly, if the technology shows concerts, it might be found that it is in the same product market as radio, records, and live musical performances.

The contours of the relevant product market of new video technologies have important implications as to the likelihood that a plaintiff may prevail in antitrust litigation, and the extent to which these video technologies should be regulated.²¹⁸ Examining the product market of a video technology in terms of the programming it delivers and the particular market in which it operates suggests that the scope of the product market might vary considerably throughout the country. Factors that account for this difference include the services the technology delivers, other services available in the community, and the ways in which people in the community use the services. For antitrust litigation, this variation means that actions that may constitute a violation in one community might not in another. For regulatory policy, it means that, to the extent possible, the determination of what constitutes effective competition should be considered on a case by case basis with as little reliance on fixed standards as possible. Thus, in regard to the recently passed Cable Act of 1984²¹⁹

²¹⁸ See supra notes 7-25 and accompanying text.

²¹⁹ See supra notes 22-25 and accompanying text.

which calls upon the FCC to set standards for defining effective competition, the FCC should establish flexible standards in order to account for differences among communities and differences among services provided by cable operators.

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