
Shifting Foundations: The Regulation of Telecommunications in an Era of Change

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Introduction

Recent market events portend an aggressive movement toward the future multimedia marketplace. Multimedia services will encompass interactive video, voice and data services, computer applications, and a vast array of new programming choices. Traditional narrowband video and phone networks in the cable and telephone industries will be modified to create competing voice, video, and data services. Wireless technologies including the many applications of personal communications services (PCS) will emerge as significant new competitive forces in the market for voice and data services. As these technical and market developments shape the future telecommunications infrastructure, the government, in its roles as regulator and communications lawmaker, will have a significant impact on the market's ability to realize the full potential of a competitive broadband multimedia future.

To assess government's influence on business development, the telecommunications industry must remain aware of signals of future communications policy and regulatory trends. Proposed mergers among entities in the cable, programming, and telecommunications businesses provide an indication of the regulatory challenges ahead. [\(note 1\)](#)

The Federal Communications Commission (FCC or Commission) must balance the effects of consumer, economic, and industry trends as the multimedia marketplace evolves. Business and legal interests must endeavor to understand how the Commission generally views the movement toward a broadband infrastructure. The Commission will face several critical issues, including: (1) the reregulation of the cable television business; (2) the rapidly evolving relationships among cable operators, direct broadcast satellite (DBS) ventures, multichannel programming vendors, and the broadcast television networks; (3) the convergence of interests between telephone and wireless services; (4) the evolution of telephone companies into the multimedia marketplace; and (5) the authorization of new wireless services, such as personal communications services, which could permit access to an array of voice, data, and video communications services regardless of a subscriber's location. As the Commission faces each of these challenges, it must balance various economic and public policy factors to avoid unintended consequences, such as decreased competition or delay in the implementation of new services.

I. Implications of Recent Mergers and Alliances [\(note 2\)](#)

Given the revival of megamerger activity, it is important to distinguish today's mergers and acquisitions from the leveraged buyouts of the 1980s. During the 1980s, American industry and the communications sector experienced a movement toward concentration and vertical integration through mergers and buyouts that were financed by debt especially high yield or junk bond mechanisms. [\(note 3\)](#) The cable television industry evolved from a large number of smaller, local cable operators into what is now a series of large multiple system operators (MSOs) such as TCI and Time Warner. In addition, a number of the MSOs became vertically integrated through ownership interests in programming vendors. [\(note 4\)](#) These developments enabled individual MSOs to become involved in both cable service and program development. These capabilities, in turn, allowed them to offset their debt leverage through cash flows derived from both distribution and programming fees.

In 1993 there have been a series of proposed mergers and alliances that will position major cable and telephone companies for the future multimedia market. As these industries experience a convergence of interests toward

multimedia services, they will combine television, telecommunications, and computers to transform the way we interact with the information in our homes, automobiles, and elsewhere.[\(note 5\)](#) Because the expertise necessary to develop these new markets generally is not found within one company, new alliances are being forged to integrate the networking or programming expertise of particular players and establish leadership in the development of a broadband information superhighway.[\(note 6\)](#)

A. Descriptions of Recent Mergers and Alliances

1. Bell Atlantic and Tele-Communications, Inc.

The proposed merger between Bell Atlantic and TCI[\(note 7\)](#) represents one of the largest mergers in American history.[\(note 8\)](#) This combination is significant due to its potential to shape the interactive, multimedia future of the telecommunications infrastructure by fostering the two-way switching necessary to build connectivity and flexibility into the information superhighway. The proposed merger symbolizes the immense capital required to develop and deploy services in the multimedia world.[\(note 9\)](#)

The merger is likely to face a number of reviews before Congress as well as the FCC, the Federal Trade Commission (FTC), and the Department of Justice. Specifically, Bell Atlantic will need to (1) seek a Justice Department waiver from the 1984 Bell System divestiture rule that bars any Bell company from the long-distance business, because cable television satellite program transmissions cross phone company Local Access and Transport Area (LATA) territories; (2) obtain permission from 1600 municipal franchising authorities that must approve the transfer of TCI's systems; (3) satisfy Congress and the FTC that the merger will not restrain competition; and (4) petition the Commission to transfer TCI's microwave radio licenses to Bell Atlantic.[\(note 10\)](#)

2. Proposed Mergers with Paramount Communications, Inc.

Various entities are vying to acquire Paramount Communications, Inc. Viacom initially offered \$8.2 billion for Paramount.[\(note 11\)](#) Since that offer, there have been a succession of counteroffers: QVC Network, Inc. (QVC) offered \$9.5 billion; Viacom matched the QVC offer;[\(note 12\)](#) BellSouth is reportedly preparing a solo bid in the takeover battle;[\(note 13\)](#) and Turner Broadcasting reportedly has been considering an offer with QVC.[\(note 14\)](#) Meanwhile, TCI appears to be in a position to influence the acquisition, through its investment in QVC. The telephone companies also are providing funds, as shown by the NYNEX investment in Viacom. As in the proposed Bell Atlantic/TCI merger, the prize in this endeavor is the combination of programming and distribution networks.[\(note 15\)](#) The entity that ultimately emerges from this series of market maneuvers will be well positioned to enter the future multimedia marketplace.

3. NYNEX and Viacom

If one recognizes the building blocks of the technology superhighway as (a) switching and (b) programming, the proposed telephone company (telco) investments in cable systems and programming begin to follow a discrete rationale.[\(note 16\)](#) On October 4, 1993, NYNEX and Viacom announced the formation of a strategic relationship.[\(note 17\)](#) NYNEX will invest \$1.2 billion in Viacom, an amount that may be reduced by either party if the merger of Viacom and Paramount is not completed by August 31, 1994.[\(note 18\)](#) The strategic alliance between these two companies must be viewed in light of the larger aggregation occurring between Viacom and Paramount, which bears a strong resemblance to US West's linkage with Time Warner. If the American market produces a supertechnology highway, it likely will be a system of networks constructed through symbiotic, out-of- region relationships between cable and telecommunications companies.[\(note 19\)](#) Although our regulatory structure bars the telephone companies from directly providing video programming services in their regions, out-of- region alliances are permitted;[\(note 20\)](#) thus, these ventures meld the complementary strengths of telephone and cable companies.

4. US West and Time Warner

US West completed the acquisition of a 25.51 percent stake in Time Warner Entertainment on September 15, 1993.[\(note 21\)](#) To enable the required divestiture of eight Time Warner cable systems located in US West service areas, the Commission granted an eighteen-month waiver of its cable-telco cross-ownership rules.[\(note 22\)](#) The intent of this alliance is to build interactive networks to carry communications, information, and entertainment. Time Warner will obtain an infusion of \$2.5 billion in cash and the ability to draw upon US West's expertise in building and managing two-way switched networks.[\(note 23\)](#) US West will get a stake in the cable, entertainment, and media operations of Time Warner, thus giving US West a platform from which to compete with other local exchange telephone companies in providing local services, particularly access services for long distance carriers in their service areas.[\(note 24\)](#) In addition, Time Warner's ability to draw on its programming strength dovetails with US West's expertise in switching and telephone operations.

5. BellSouth and Prime Management

BellSouth's acquisition of a 22.5 percent stake in Prime Management has opened the door for that telephone company to gain access to programming.[\(note 25\)](#) This venture with the twenty-fourth largest cable operator in the country provides BellSouth with an opportunity to test new market services especially interactive and pay-per-view television services. By employing BellSouth's expertise in network architecture with Prime Management's background in packaging, pricing, and cable program distribution, the two companies place themselves in a position to develop an interactive technology highway in Las Vegas.[\(note 26\)](#)

6. Southwestern Bell and Hauser Communications

In February 1993, Southwestern Bell (SWB) announced that it would buy two cable systems in metropolitan Washington, D.C., from Hauser Communications. The price was \$650 million.[\(note 27\)](#) This deal is relatively limited in size and scope as compared to the Bell Atlantic/TCI and US West/Time Warner alliances. Nonetheless, the acquisition by SWB is still considered to be a strategic response to advancing competition, and will enable SWB to move beyond its in-region territories in order to take advantage of other lucrative U.S. markets.

B. Motivations and Implications of the Mergers and Developments

1. Development of a Multimedia Marketplace

Viewing these mergers and alliances as a whole, one should ask what is motivating these changes and what they mean in terms of future telecommunications choices. There appear to be two primary motivations for today's telecommunications alliances and acquisitions. The first is the pursuit of the opportunity to participate in the digital multimedia future. The second is the necessity to protect core businesses and assets in the race for position in these major new markets. Those who do not participate in a meaningful way risk being relegated to niche status.

Current developments signal that the broadband infrastructure of the future will evolve as a multimedia marketplace. As the cable, telecommunications, and computer industries evolve toward cooperative ventures, it is doubtful that any single entity will dominate the new multimedia marketplace because of the brisk pace of technological change.[\(note 28\)](#) The rate of change toward new market services will depend greatly upon the ongoing level of regulatory oversight. Several FCC rules still constrain cable and telephone company operations in any new alliance. In addition, major alliances are likely to face significant antitrust review.[\(note 29\)](#)

The timing of these strategic alliances are affected by several factors, including: (1) the regulatory implications for vertically integrated cable operators and programmers; (2) judicial challenges to the cable-telco cross-ownership rules; and (3) the remaining legal restrictions from the modified final judgment. Each of these measures affects the potential for growth in existing cable and telecommunications markets. Thus, while companies are responding to the rapid changes in technology by forming new strategic partnerships, they also must resolve regulatory and legal issues raised by these transactions.

The recent mergers and alliances reveal the most cost-effective means of building the technology superhighway.[\(note 30\)](#) Recognizing that industry profits and expansion will be attained through the sale of software, programming, and terminal equipment, market actors are developing alliances that will mitigate the costs of constructing and maintaining the underlying infrastructure.[\(note 31\)](#)

The Bell Atlantic/TCI merger and the NYNEX/Viacom alliance are examples of this type of potential synergy. Cable companies need access to switching and network capabilities. Thus, to pursue the multimedia future, cable companies must replace their existing one-way, coaxial-based networks with optic fiber-based interactive information superhighways. This presents two major problems. First, they have little experience in switched communications networks. Second, it will be a challenge to finance this infrastructure upgrade, which involves an estimated cost of \$43 billion.[\(note 32\)](#)

Given that debt and equity financing is likely to be more difficult to obtain under Commission rules reregulating the cable television industry, recent cooperative ventures are partially explained by the fact that telephone companies can solve these problems. Telephone companies need access to programming. Recent cable-telco alliances combine programming and technology, giving both partners (1) expertise in operating a highly reliable, switched network and a complex billing system and (2) experience in packaging and marketing video services over a broadband network.[\(note 33\)](#)

2. Competitive Implications in the Multimedia Marketplace

While the precise shape of the multimedia future is only beginning to emerge, the variety of entities seeking alliances indicate that access to programming is critical to those interested in becoming viable competitors in the multimedia environment. Technology is merging separate systems of passive, one-way entertainment networks and two-way voice communications networks of limited bandwidth into two-way interactive broadband information highways. These highways will carry voice, data, and video applications over broadband networks.

Several policy views have been articulated in response to the recent series of cable-telco alliances. One view is that these transactions signal an industry shakeout.[\(note 34\)](#) This scenario anticipates that there will be increasing concentration in telecommunications markets and a decrease in the development of effective competitive forces.[\(note 35\)](#) Some analysts indicate that the majority of telecommunications markets probably have an oligopolistic equilibrium, centered on a few core firms, with remaining small firms supplying niche market demands.[\(note 36\)](#) In this regard, the worst-case competitive scenario is the emergence of a one wire world, which might result, for example, from the wholesale purchase (if permitted by government) of the U.S. cable television industry by the local exchange telephone industry.

Another view is that the emergence of a single wire monopoly over voice, data, and video delivery appears rather unlikely.[\(note 37\)](#) There are presently three wires into the average American home: telephone, cable, and electric wires.[\(note 38\)](#) Some of the electric utilities are already major cable providers.[\(note 39\)](#) In addition, wireless technology could ultimately ensure an alternate connection to users' premises. One example of the vigorous innovation in this area is a technology that enables wireline telephones to connect to, and utilize, wireless networks.[\(note 40\)](#) At present, this system is used to provide backup phone service in some hospitals and for other applications, but the potential for wider application is apparent. Further, the Commission recently has authorized mobile personal communications services to provide voice and data services throughout the United States.[\(note 41\)](#) Thus, ongoing technical developments improve the prospects for multiple competitors in local exchange markets.[\(note 42\)](#)

The impact of these mergers and alliances on the industry will depend in large measure on the response of regulatory policies in promoting and maintaining a framework for effective competition. Regulators should maintain a regulatory environment that will provide effective market safeguards against potential anticompetitive behavior, such as exclusive dealings between partners in strategic alliances, and attempts to leverage control over essential facilities through discrimination in providing access.

3. The Effect of the Changes in the Cable-Telco Cross-Ownership Rules

Without assurances that telephone companies would be more than a common carrier conduit for program services, the regional telephone companies have remained skeptical about entering the cable television arena until recently. Their cautious investment approach was not alleviated by the 1991 ruling that authorized Baby Bells to participate in information services.[\(note 43\)](#) The Commission's 1992 video dialtone ruling[\(note 44\)](#) also did not spur an immediate outpouring of investment from the telephone industry.[\(note 45\)](#) Thus, until recently, the regional Bell Companies have been assessing the video services market from the sidelines.

During the past year, however, Bell Atlantic, US West, BellSouth, and Southwestern Bell have leaped aggressively into the cable television arena. A recent ruling in the U.S. District Court for the Eastern District of Virginia, Alexandria Division,[\(note 46\)](#) has the potential to reduce or eliminate the regulatory barrier to cable-telco services within existing telephone regions. The *Chesapeake* court found the programming prohibition of the cable-telco cross-ownership statute unconstitutional.[\(note 47\)](#) What yields the greatest opportunity for telephone companies is the underlying rationale of this decision: regulations barring telephone companies from video services violate the First Amendment.[\(note 48\)](#)

The *Chesapeake* decision has effectively sent a message to regulators and legislators alike that the courts will take the lead in rearranging the telecommunications industry. Industry representatives have speculated that Congress will respond quickly to the recent judicial activity by enacting legislation that will modify the ban on telco cross-ownership as early as 1995.[\(note 49\)](#) Proposed bills would attempt to calm consumer fears of monopolistic information services by limiting the ability of telephone companies to purchase existing cable systems within their service areas.[\(note 50\)](#) Telephone companies have wasted no time in positioning themselves to become an integral part of the requisite infrastructure by searching to acquire and develop alliances with those cable entities that can provide valuable programming sources. In our role as regulators, we will need to review these actions in order to ensure consumer protection, while also nurturing a growing multimedia marketplace.

II. Overview of the Regulatory Environment

As we move toward a multimedia marketplace, the Commission must maintain balanced regulatory policies to ensure that the consumer has competitive choices for program and telecommunications services. In particular, the Commission now faces a number of critical regulatory responsibilities in considering cable-telco cross-ownership issues and in implementing the provisions of the 1992 Cable Act.[\(note 51\)](#)

A. Cable-Telco Regulations

Under the 1984 Cable Act,[\(note 52\)](#) the Commission's cable-telco cross-ownership restrictions prohibit telephone companies from providing programming within their respective regions.[\(note 53\)](#) In 1984, cable television was in its infancy and policymakers did not want telephone companies to impede the fledgling cable industry.[\(note 54\)](#) Almost ten years later, cable has matured and no longer requires all of these protections. As such, the Commission has begun to look more favorably upon the entry of telephone companies into the video marketplace.

In its 1992 *Order* authorizing video dialtone service by telephone companies, the FCC determined that telco entry in the video marketplace would accomplish: (1) increased investment opportunities for the development of an advanced telecommunications infrastructure; (2) additional competition in the video and communications markets so that free market forces, rather than government regulation, determine the success or failure of new services; and finally, (3) a diversity of video services in order to create additional opportunities for consumer choice.[\(note 55\)](#) To fulfill those goals, the Commission decided that telephone companies could enter the market on a common carrier basis by supplying video transport to programmers with open access and without discrimination.[\(note 56\)](#) In addition, the Commission recommended to Congress that it amend the 1984 Cable Act to allow telephone companies to provide video programming in their service areas in order to serve the public interest, subject to appropriate safeguards.[\(note 57\)](#)

In supporting the relaxation of various regulatory prohibitions on cable-telco matters, the Commission must ensure that telephone companies do not create a monopolistic environment in the video services market.[\(note 58\)](#) The

Commission's video dialtone ruling requires accounting and cost allocation measures to ensure that the Bell Operating Companies do not cross-subsidize their video dialtone services with revenues from basic, regulated telephone services.[\(note 59\)](#) The Commission must remain mindful of consumer interests while providing more flexibility for telephone companies to offer video services in- region.[\(note 60\)](#)

B. The Challenge of the 1992 Cable Act

The 1992 Cable Act presents the FCC with significant regulatory challenges. With respect to rules developed by the Commission in response to the Act, the primary questions are: (1) How much will consumers benefit from the 1992 Cable Act? (2) How much will consumer cable bills be reduced? (3) How many competitive service choices will there be for consumers? and (4) What quality of service will be provided? The Commission's cable regulations are intended to (1) reduce cable rates to a level consistent with systems facing effective competition, (2) grant alternative multichannel programming distributors greater access to cable programming, and (3) grant broadcasters a choice between carriage provisions or retransmission consent payments.[\(note 61\)](#)

In order to assess the implications of the new cable rules both its costs and benefits the FCC must consider more than consumers' savings on monthly cable bills. It is imperative that the Commission also evaluate the economic consequences of the regulations on the future of cable and the broadband network.[\(note 62\)](#) As measured by potential regulatory disincentives for the offering of new services and the potential regulatory impediments to investment in the multichannel marketplace, the cable industry will be economically challenged by the new cable regulations. As the multimedia marketplace continues to evolve, the Commission and the industry face collective responsibilities to implement cable regulations without dire, unintended consequences.

1. FCC Implementation of the 1992 Cable Act

Since the passage of the 1992 Cable Act, the Commission has established rules regarding (1) cable rate regulation;[\(note 63\)](#) (2) program access to increase the availability of multichannel programming through all distributors (including DBS and wireless cable) by prohibiting unfair and discriminatory practices of vertically integrated programmers in selling programming to competing technologies;[\(note 64\)](#) (3) horizontal and vertical ownership limits as structural measures to address concerns regarding concentration and vertical integration;[\(note 65\)](#) and (4) must-carry and retransmission consent rights for local broadcast stations.[\(note 66\)](#) In the absence of effective competition to local cable systems, the Commission's effort to fulfill the intent of Congress is guided by the overriding goals of improving service and promoting competition in the multichannel video marketplace.

In responding to concerns about cable reregulation, the Commission must weigh consumer and industry interests while implementing regulations. With respect to cable rate regulation, the Commission is currently (1) reconsidering the structure of the benchmark mechanism and how possible refinements might be built in, (2) establishing cost-of-service rules to govern the process for cable operators to justify rates above the benchmark levels, and (3) completing a survey of changes in program service rates in response to the rate regulations.[\(note 67\)](#) In addition, the program access provisions and the horizontal and vertical ownership limits established by the 1992 Cable Act will have a significant influence on the development of the multichannel marketplace as it moves toward an information superhighway. As the industry works through a critical transition from deregulated operations to a regulatory environment, the Commission must responsibly manage this environment to allow infrastructure *choices* to develop in the future. In the interim, this will likely involve monitoring the extent to which new programming can continue to emerge and become available to all distributors.

2. FCC Regulation and Future Economic Challenges for Cable

Under the 1992 Cable Act, the FCC is authorized to regulate significant aspects of the cable business.[\(note 68\)](#) The sooner the cable industry is subject to effective competition, the sooner our regulatory framework will place less of a constraint on future investment. One of the important provisions of the 1992 Cable Act that will bring competition to the cable industry through program access holds great potential to promote effective competition within the cable market. Several Direct Broadcast Satellite (DBS) proponents are endeavoring to launch services within the next

year.[\(note 69\)](#) Satellite C-band service providers, wireless cable systems, and emergent 28 GHz Local Multipoint Distribution Service (LMDS) systems also need access to programming. The efficient implementation of the program access regulations are crucial to achieving this reality. Meanwhile, during the transition period to effective competition, we must balance the Commission's regulatory efforts to provide benefits to consumers, without causing unnecessary confusion in the cable industry. As we go forward with these efforts, a number of policy and economic considerations should guide the Commission's thinking.

=s4a. Reduced Rates and the Level of Service As an initial economic issue, the Commission must consider the relationship between cable rates and the corresponding level of service offered to consumers. Specifically, as cable rates are eventually reduced (either in compliance with the benchmark mechanism or based on a cost-of-service showing), consumers may find these lower rates more attractive. However, they could also experience a reduction in the quantity of packaged cable services that operators or programming vendors are willing to provide at lower rates. More program services may need to be offered a la carte or in a variety of bundled premium channel packages to recoup the necessary returns. Indeed, the Commission's preliminary survey on changes in cable programming service rates between April 1, 1993, and September 1, 1993, revealed that several MSOs had restructured services to offer unregulated packages of a la carte offerings.[\(note 70\)](#) While some consumers may be slow to notice a reduction in service, the effect of reduced revenues and limits on available channel space may stall the introduction of new programming services.

With respect to applications of the benchmark, cable companies predict they will experience at least a 10 percent reduction in revenues and a 16 to 20 percent reduction in operating cash flow.[\(note 71\)](#) Without new financing, some companies may be forced to forestall new services and other technological improvements.[\(note 72\)](#) In terms of the impact on programming services, Ted Turner has emphasized that to the extent that cable regulations inhibit cable operators, they will also inhibit programmers and discourage the launching of new channels.[\(note 73\)](#) *The Washington Post* recently noted in an editorial that [m]embers of the cable industry . . . are saying that the rate reductions may hurt programming quality by making it more difficult for operators to invest in expanded channel capacity and other high-tech communications services.[\(note 74\)](#)

=s4b. Incentives for Investment As another economic issue, the Commission must consider the effect of the cable rules on investment, both by MSOs in the development of their physical plant as well as from other sources. With the future communications infrastructure lying in the development of a variety of both wireline and wireless networks, it is important that cable regulations avoid unnecessarily restricting the cable industry from being a leader in the development of this information system. The cable industry has significant infrastructure investment, and can provide competitive infrastructure alternatives, replacement jobs, and consumer choice in a future broadband world of voice, video, and data services. Indeed, the cable industry still holds many advantages over the various competing distributors in its potential to capitalize on the opportunities in building a broadband network. However, because rate regulations will apply to a substantial amount of an average cable system's revenues, cable operators will face significant new constraints in meeting existing financial arrangements.[\(note 75\)](#)

The industry also faces pressure to invest in more efficient plant and equipment. Amid this environment, small cable operators are highly leveraged and face some of the most significant rate decreases. Consequently, small operators are now falling behind other operators in capital investment. Lenders have indicated that they are likely to respond to the greater risk associated with small operators by placing more restrictions on how they use their funds, when such funds are available. In particular, special interest may be focused on 'optimizing' existing subscriber bases . . . by investing in billing and collection systems rather than plant expansions.[\(note 76\)](#)

It is significant that these developments occur at a time when the American economy is relatively unsteady and needs additional business investment and industry growth. Given that the communications infrastructure of the future lies in the development of a variety of networks, both wireline and wireless, the Commission's cable regulations, and our efforts to implement these rules, must not unnecessarily restrict the cable industry from being a leader in the development of this information system. Furthermore, we must avoid an unintended result whereby larger, vertically integrated cable firms can absorb the regulations, while smaller, nonintegrated cable systems suffer dire consequences to their ongoing business operations. The Commission, therefore, must consider how to refine its rate benchmarks and

develop reasonable cost-of-service rules that would preserve investment opportunities in the multimedia marketplace of the future.

=s4c. Relationship to the Macroeconomy As a final economic consideration, we must remember that regulation of industries and technological development is linked to the general level of growth in the economy. Historically, this relationship has been clouded as regulators have reacted strongly to dynamic industries by vigorously addressing industry flaws through stringent regulations. Combined with investor reactions to the changing climate for these industries, strong regulatory actions create a pendulum effect of uncertainty and thereby complicate the industry's opportunities for continued growth. After a period of tremendous expansion and amid some notable oversights in services and pricing, it is now the cable industry's turn to endure regulatory scrutiny. As we refine the regulations in the cable industry, the Commission must not replicate past regulatory pendulum swings by seeking to balance the new rules with a need to promote industry growth and investment incentives. Cable regulations must not only provide program access for competing services, but also should consider that cable companies will be competitive players in the development of a full-service, broadband multimedia infrastructure.

3. Collective Responsibilities

As a result of the new economic challenges facing the cable industry in the regulated environment, the Commission and the industry will face several responsibilities collectively to ensure that future opportunities for growth and infrastructure development can actually occur. In refining its cable regulations, the Commission should adjust its rate mechanism where necessary to reflect common market factors. These factors include the density of subscribers served by a cable operator (which will reflect unique cost aspects of small and rural cable systems) and potential regional economic factors within various economic zones of the country. In addition, as the industry works through a critical transition from deregulated operations to the new regulated environment, the Commission must manage responsibly to allow infrastructure *choices* to develop in the future. The Commission must avoid making decisions that will inadvertently create greater concentrations in the industry.

Conclusion Until recently, the cable and telecommunications industries have faced a series of economic challenges particularly in responding to regulatory constraints in their attempts to gain early advantages in the future multimedia marketplace. The recent mergers and alliances are forming a basis of cooperative efforts to combine programming with technological advancements for the distribution of services. These efforts will be necessary for the industry to realize new multimedia opportunities. In order to ensure that these opportunities are readily available to consumers through competitive sources and to promote the full range of benefits through a competitive broadband infrastructure the relationship between business development and regulation will become an increasingly important determinant of choices available to our society. Therefore, regulators must manage the transition to an open marketplace by creating an environment that will foster investment, and preserve the legitimate, dynamic, and competitive aspects of both the cable and telecommunications industries. Furthermore, we must allocate spectrum to new wireless services in a manner that will promote additional viable competition in the local exchange markets. -----

Notes

* Commissioner, Federal Communications Commission, Washington, D.C. J.D. DePaul University College of Law; B.A., M.A. Loyola University of Chicago. Commissioner Barrett has served on the Commission since September 8, 1989. His current term commenced with confirmation by the Senate on May 23, 1990, and expires June 30, 1995. Prior to his service on the Commission, he was a Commissioner on the Illinois Commerce Commission, which is responsible for the regulation of telephone and other utilities within the state. Commissioner Barrett is a former Chairman of the National Association of Regulatory Utility Commissions' Committee on Water, a member of that body's Committee on Communications, and former president of the Mid-America Regulatory Commissioners. Assisting him with this Article were Byron Marchant, the Commissioner's Senior Legal Advisor; James Coltharp, a special advisor to the Commissioner; and Dan Meyer, the Commissioner's research assistant for the fall of 1993. [Return to text](#)

1. Recently, there have been announcements of major mergers between cable and telephone entities. For example, a merger has been proposed between Bell Atlantic, the third largest regional Bell Operating Company, and Tele-Communications, Inc. (TCI), the nation's largest operator of cable systems. *See* Bell Atlantic Corp., News Release: Bell Atlantic, TCI and Liberty Media to Merge (Oct. 13, 1993) (on file with the *Federal Communications Law Journal*). Other developments include a strategic relationship between NYNEX, the regional Bell parent company in New York, and Viacom, owner of cable systems and several popular program networks, including Music Television (MTV), Nickelodeon, Showtime, and Video Hits 1 (VH-1). *See* NYNEX Government Affairs, NYNEX Corporation Agrees on Strategic Relationship with Viacom Inc.: NYNEX to Invest \$1.2 Billion in Viacom (Oct. 4, 1993) (on file with the *Federal Communications Law Journal*). [Return to text](#)
2. The current wave of mergers parallels an expansion of the American telecommunications industry into overseas markets. This globalization of the economy follows a long tradition of concern with the compatibility of international communications systems. Telecommunications is an industry that can move naturally into the global economic era. *See* Andrew C. Barrett, Speech to the Hewlett-Packard Advantage Programme (Oct. 12, 1993) (transcript on file with the *Federal Communications Law Journal*). [Return to text](#)
3. Randall Smith, *Higher Stock Prices Are Feeding a Revival of Merger Activity*, Wall St. J., Oct. 14, 1993, at A1. [Return to text](#)
4. Examples of vertical integration include: TCI's interests in the Turner networks, Discovery, and Black Entertainment Network (BET), Diane Memigas, *Redstone Hits Back with Suit*, Electronic Media, Sept. 27, 1993, at 1; Time Warner's ownership of Home Box Office (HBO), Jay Greene, *U S West Seeks Cable OK*, Daily [Return to text](#)
5. *See* Andrew Kupfer, *The No. 1 in Cable TV Has Big Plans*, Fortune, June 28, 1993, at 92. In addition, Apple and Sony are establishing a partnership to develop a combination Macintosh computer and CD-ROM player. *See* *Newest TV Brand*, Comm. Daily, Oct. 26, 1993, at 2. Variety, Nov. 8, 1993, at 4; and Viacom's ownership of several networks including Showtime, MTV, VH1, and Nickelodeon, *Settlement Is Expected in Cable Antitrust Probe*, Daily Variety, June 9, 1993, at 17. [Return to text](#)
6. Carl Weinschenk, *Welcome to the Communications Age*, Cable World, Aug. 23, 1993, at 37, 37. [Return to text](#)
7. *See* Bell Atlantic Corp., *supra* note 1. [Return to text](#)
8. Ted Bunker, *Bell Atlantic, Tele- Communications to Join*, Investor's Bus. Daily, Oct. 14, 1993, at 1. The merged entity remaining after the Bell Atlantic and TCI combination will have revenues of about \$17 billion\$7 billion of which is direct cash flow. Such a company will be able to expand multimedia services into 95% of the homes that currently own television sets. *Id.* Bell Atlantic and TCI have stated that they plan to invest \$15 billion in the next five years from the future cash flow provided by new services in order to build the information superhighway. This spending would exceed the capital plans of the separate entities by approximately 15 to 20%. John J. Keller, *Bell and TCI Plan to Invest \$15 Billion in 'Superhighway' After the Takeover*, Wall St. J., Oct. 27, 1993, at A3. [Return to text](#)
9. TCI is already investing \$2 billion in fiber- optic cable and other new technologies that will divide services into hundreds of channels, provide numerous pay-per-view options, and link the consumer with powerful set-top computer/converter boxes. Edmund L. Andrews, *Cable Company Plans a Fiber-Optic Network*, N.Y. Times, Apr. 12, 1993, at D1. In this regard, General Instruments, Intel, and Microsoft are developing a computer/converter set-top unit and associated hardware and software that will apply compression technology to enable TCI to squeeze bandwidth of 10 cable channels into one, so that traditional cable systems could expand from 54 channels to 544. One million subscribers will be offered the expanded service by early 1995. Mary Thyfault & Linda Wilson, *Phone-For-All*, InformationWeek, Dec. 7, 1992, at 12, 12. Furthermore, TCI, AT&T, and US West are already collaborating on the development of movies- on-demand prototype programs. Kevin Maney, *TV-Tech Mecca Rises in Rockies/Big Vendors Draw Others*, USA Today, Nov. 10, 1993, at 4B. [Return](#)

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10. See Anthony Ramirez, *Bell Atlantic Faces Regulatory Hoops*, N.Y. Times, Oct. 15, 1993, at C1, C4; Sandra Sugawara, *Chiming in on the Bell Atlantic Deal*, Wash. Post, Oct. 15, [Return to text](#)
11. Geraldine Fabrikant, *QVC's Move Is Awaited as Viacom Begins Bid*, N.Y. Times, Oct. 26, 1993, at D2.1993, at G1. [Return to text](#)
12. *Id.* [Return to text](#)
13. Randall Smith & Anita Sharpe, *BellSouth Considering Making Solo Bid for Paramount; Analysts are Skeptical*, Wall St. J., Oct. 27, 1993, at A2. [Return to text](#)
14. Mark Landler et al., *Scaling Mount Paramount*, Bus. Wk., Oct. 4, 1993, at 26, 26. [Return to text](#)
15. Paramount has indicated that it will, along with Chris-Craft Industries, form a fifth broadcast television network in January 1995 that will reach 70% of the country. Laura Landro & Kevin Goldman, *Paramount, Chris-Craft to Create a Fifth Network*, Wall St. J., Oct. 27, 1993, at B1, B9. [Return to text](#)
16. Indeed, it has recently been announced that AT&T will supply sophisticated servers and related equipment to Viacom Cable's multimedia test in Castro Valley, California. Don Jeffrey, *Viacom, AT&T to Test Interactive Cable*, Billboard, June 12, 1993, at 5, 5. [Return to text](#)
17. See NYNEX Government Affairs, *supra* note 1. [Return to text](#)
18. *Id.* at 1. [Return to text](#)
19. Bart Ziegler et al., *Calling All Channels*, Bus. Wk., Sept. 27, 1993, at 130, 132. Viacom has no services in NYNEX's six-state territory. [Return to text](#)
20. National Telecommunications and Information Administration, U.S. Dep't of Commerce, Globalization of the Mass Media 141 (1993) [hereinafter NTIA, Globalization] (discussing the history of the cable-telco cross-ownership prohibition). [Return to text](#)
21. *Business in Brief*, Atlanta Const., Sept. 15, 1993, at C3. [Return to text](#)
22. *In re Time Warner Entertainment Co., L.P. and US West Comm., Inc.*, Petition for Waiver of 63.54 of the Commission's Rules, *Memorandum Opinion and Order*, FCC 93-436, 1993 FCC LEXIS 4741 (Sept. 14, 1993). [Return to text](#)
23. *Time Warner Names New Unit Chief*, Reuters, July 23, 1993, available in LEXIS, Nexis Library, Finrpt File. [Return to text](#)
24. Josh Hyatt, *1,200 Job Cuts Loom at N.E. Telephone*, Boston Globe, Oct. 1, 1993, at 69. [Return to text](#)
25. Anita Sharpe & Mark Robichaux, *BellSouth to Enter Cable TV by Buying Stake in Prime*, Wall St. J., Oct. 13, 1993, at B1. [Return to text](#)
26. *Id.* [Return to text](#)
27. Mary Lu Carnevale et al., *Cable-Phone Link Is Promising Gamble*, Wall St. J., May 18, 1993, at B1, B10; see also Anita Sharpe, *Southwestern Bell Said to Agree to Invest in Cable Company with Cox Enterprises*, Wall St. J., Nov. 8, 1993, at B8. [Return to text](#)
28. Weinschenk, *supra* note 6, at 73. Given that the interactive electronic superhighway constructed through cross-industry alliances will require sophisticated and extensive communications capability, the opportunities for a

- single player to monopolize the marketplace are likely to be inhibited by technical constraints. *Id.* [Return to text](#)
29. Sugawara, *supra* note 10, at G1 (citing comments by Rep. Edward Markey (D-Mass.), Sen. Howard Metzenbaum (D-Ohio), and Vice President Al Gore). [Return to text](#)
 30. Anthony Ramirez, *Head Start on Data Superhighway*, N.Y. Times, Sept. 8, 1993, at D1. [Return to text](#)
 31. The most significant actors in this process are the telephone companies, as they have the financial resources and technological ability to build a national information infrastructure. *Telcos in 'Driver's Seat' for Info Age, Says MIT's Negroponte*, Telecomm. Rep., Oct. 11, 1993, at 7. [Return to text](#)
 32. Leslie Scism, *Cable Companies Face a Debt- Strewn Superhighway*, Wall St. J., Aug. 26, 1993, at B4. [Return to text](#)
 33. *NYNEX-Viacom 'Strategic Alliance' Sheds Light on Emerging Patterns as Communications Industry Converges*, Telecomm. Rep., Oct. 11, 1993, at 20. [Return to text](#)
 34. *See* Barrett, *supra* note 2, at 8. [Return to text](#)
 35. *Id.* [Return to text](#)
 36. *Id.* [Return to text](#)
 37. Kenneth Robinson, *Implications of the Court's Video Programming Decision: Telcos Will Enter the Cable Industry in a Big Way*, Cable-Telco Rep., Sept. 13, 1993, at 16. [Return to text](#)
 38. *Id.* [Return to text](#)
 39. *Id.* [Return to text](#)
 40. John J. Keller, *A 'Magic Box' Turns Wired into Wireless*, Wall St. J., Oct. 4, 1993, at B1. [Return to text](#)
 41. *Action in Docket Case New Personal Communications Services Established* (Gen. Dkt. No. 90-314) FCC News, Sept. 23, 1993, 1993 FCC LEXIS 4923, *9 (Barrett, A.C., dissenting). On September 23, 1993, the Commission adopted a decision authorizing new personal [Return to text](#)
 42. In this regard, MFS Communications Co., which is seeking to compete with C&P Telephone Cos. and other local phone companies, has proposed a significant revision to the concept of universal service. Under the MFS plan, subsidies paid by long- distance companies and some profits from commercial customers of all local phone companies will be put in a universal service fund that would be administered by a third party to subsidize rates paid by low-income individuals. Sandra Sugawara, *Firm Urges FCC to Alter Phone Policy*, Wash. Post, Nov. 2, 1993, at C4. [Return to text](#)
 43. Ziegler et al., *supra* note 19, at 131. In fact, it has become evident from the abundance of telco-cable acquisitions that telephone companies are willing to divest properties within their service areas in order to conform with the 1992 Cable Act and to take advantage of the opportunities presented by video dialtone. *Id.* [Return to text](#)
 44. *In re Telephone Co.-Cable TV Cross- Ownership Rules*, 63.54-63.58, *Second Report and Order, Recommendation to Congress, and Second Further Notice of Proposed Rulemaking*, 7 FCC Rcd. 5781 (1992) [hereinafter *Video Dialtone Order*] (permitting telephone companies to provide video dialtone services). [Return to text](#)
 45. Ziegler et al., *supra* note 19, at 131. [Return to text](#)
 46. *Chesapeake and Potomac Tel. Co. of Va. v. United States*, 830 F. Supp. 909 (E.D. Va. 1993). [Return to text](#)

47. *Id.* at 932. [Return to text](#)
48. *Id.* at 931-32. Ameritech, the Chicago- based regional Bell Operating Company, has filed a federal court suit to overturn the cable-telco cross-ownership restrictions in- region in an effort to introduce cable television and interactive service in Illinois and Michigan. *Financial Digest*, Wash. Post, Nov. 2, 1993, at C1. [Return to text](#)
49. See Sean Scully, *Tauke Predicts Passage of Telco-Entry Bill*, *Broadcasting & Cable*, Sept. 27, 1993, at 55. Legislation to lift the cross-ownership limits has been introduced under the sponsorship of Representatives Rick Boucher (D-Va.) and Michael G. Oxley (R-Ohio) with similar legislation introduced by Senators John Danforth (R-Mo.) and Daniel K. Inouye (D-Haw.). *Id.* [Return to text](#)
50. See, e.g., H.R. 1504, 103d Cong., 1st Sess. (1993). [Return to text](#)
51. Cable Television Consumer Protection and Competition Act of 1992, Pub. L. No. 102-385, 106 Stat. 1460 (codified in scattered sections of 47 U.S.C.A. 521-611 (West Supp. 1993)). [Return to text](#)
52. Cable Communications Policy Act of 1984, Pub. L. No. 98-549, 98 Stat. 2779 (codified in scattered sections of 47 U.S.C.). [Return to text](#)
53. 47 U.S.C. 533(b) (1988). [Return to text](#)
54. NTIA, Globalization, *supra* note 20, at 141. [Return to text](#)
55. See *Video Dialtone Order*, *supra* note 44, para. 9. [Return to text](#)
56. *Id.* para. 10. [Return to text](#)
57. *Id.* para. 119. [Return to text](#)
58. Under the modified final judgment, Bell Operating Companies (BOCs) can provide unregulated, enhanced information services but cannot manufacture equipment or provide inter-LATA telephone services. See *United States v. AT&T*, 552 F. Supp. 131, 227 (1982) (Modification of Final Judgment). As a result, BOCs are limited to providing video dialtone services in- region and cable television services out-of-region, subject to the inter-LATA restrictions. *Id.* [Return to text](#)
59. See *Video Dialtone Order*, *supra* note 44, para. 92 (1992). [Return to text](#)
60. Legislators perceive a strong need to promulgate pro-competitive, pro-consumer legislation to address the cable-telco issues. House telecommunications subcommittee Chairman Edward J. Markey (D.-Mass.) has stated: In addition to the good that [Return to text](#)
61. Andrew C. Barrett, Keynote Address at Prentice Hall Law & Business 1993 Cable Conference, 1993 FCC LEXIS 3317, *1 (June 28, 1993). [Return to text](#)
62. For a discussion of economic and evidentiary theory in administrative law, see Warren G. Lavey, *Inconsistencies in Applications of Economics at the Federal Communications Commission*, 45 Fed. Comm. L.J. 437 (1993). [Return to text](#)
63. See *In re Implementation of Sections of the Cable TV Consumer Protection and Competition Act of 1992, Rate Reg., Report and Order and Further Notice of Proposed Rule Making*, 8 FCC Rcd. 5631 (1993) [hereinafter *Rate Order*] (to be codified in part at 47 C.F.R. pts. 0, 76). [Return to text](#)
64. *In re Implementation of 12 and 19 of the Cable TV Consumer Protection and Competition Act of 1992, First Report and Order*, 8 FCC Rcd. 3359 (1993). [Return to text](#)

65. *In re* Implementation of 11 and 13 of the Cable TV Consumer Protection and Competition Act of 1992, Horizontal and Vertical Ownership Limits, *Second Report and Order*, MM Dkt. No. 92-264, FCC 93-456, 1993 FCC LEXIS 5406 (Oct. 22, 1993). [Return to text](#)
66. *In re* Implementation of the Cable TV Consumer Protection and Competition Act of 1992, Brdcast. Signal Carriage Issues, *Report and Order*, 8 FCC Rcd. 2965 (1993). [Return to text](#)
67. *See Rate Order*, *supra* note 63. [Return to text](#)
68. *See supra* notes 63-66 and accompanying text. [Return to text](#)
69. For example, the Hughes DBS project is set for launch in April 1994 and will potentially reach 3 million subscribers by the end of 1996. John Burgess, *Hughes Has High Hopes for Satellite TV*, Wash. Post, June 14, 1993, at A8. [Return to text](#)
70. *Action in Docket Case FCC Announces Preliminary Results of Cable Rate Survey* (MM Dkt. No. 92-266), FCC News, Oct. 21, 1993, at 1. [Return to text](#)
71. Cablevision Industries Corp., *The Financial and Economic Impact on the U.S. Cable Television Industry of FCC Rate Regulation Under the Cable Consumer Protection and Competition Act of 1992*, at 1 (1993) (study evaluating the financial and economic impact of the rate regulations and detailing the industry's growth, financial performance, and its history of financing); *see also* Letter from an unidentified source, to Andrew C. Barrett, Commissioner, FCC (June 16, 1993) [hereinafter Letter to Barrett] (on file with the *Federal Communications Law Journal*). [Return to text](#)
72. Letter to Barrett, *supra* note 71, at 6. [Return to text](#)
73. Harry A. Jessell, *Ted Turner Doesn't Share Viacom's Frank Biondi's Opinion*, *Broadcasting*, Nov. 9, 1992, at 50, 50. [Return to text](#)
74. *A Sharper Eye on Cable TV*, Wash. Post, Apr. 3, 1993, at A22. [Return to text](#)
75. For example, in the absence of cash to repay its existing indebtedness, one company is reported to have shelved plans to refinance existing bank loans and observed that many cable television companies will face loan defaults and possible [Return to text](#)
76. John M. Higgins, *Rules Crunch, But Don't Strangle, Financing*, *Multichannel News*, June 14, 1993, at 60, 60. This view is reinforced in a letter from major industry lenders, representing more than \$17 billion in commitments. The letter states that these lenders are unlikely to lend new funds until the impact of the rules are quantified, and operators provide supportable forecasts. Letter from Bank of America et al. to James H. Quello, Acting Commissioner, FCC, 2, MM Dkt. No. 92-266 (June 21, 1993) (on file with the *Federal Communications Law Journal*). The lenders noted that while the strongest cable operators will have financing options, the smaller (pure) cable operators will find all forms of capital elusive. *Id.* at 3. [Return to text](#)