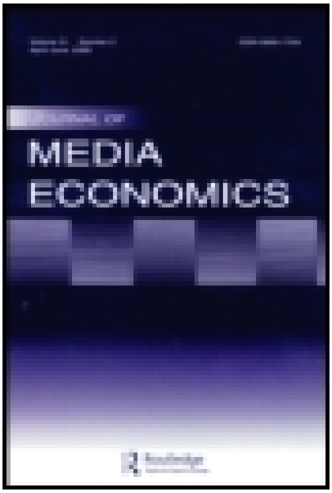

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The Impact of the Telecommunications Act of 1996 on the Merger of RBOCs and MSOs: Case Study: The Merger of US West and Continental Cablevision

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In addition to technology's eroding boundary lines, deregulation also has the power to affect the structure of the communications industry. With the passage of the Telecommunications Act of 1996, cross-ownership between telephone and cable industries would be expected to happen often in the following years. The merger of US West and Continental Cablevision Inc. is the first case after deregulation. It is helpful to explore the economic efficiencies and the search of market power from this case to forecast the market structure and conduct strategies of future mergers in the electronic media and telecommunication industries.

Within the past 5 years, giant players in the electronic media and telecommunications industries have transacted hundreds of billions of dollars in mergers and acquisitions. The stated industry rationales for these mergers are to achieve economic efficiencies arising from economies of scale and scope, synergies, horizontal and vertical integration, and market power. Some mergers and acquisitions have failed, but many more have succeeded. For example, in 1993, AT&T agreed to buy McCaw Cellular to reenter the local phone business and Bell Atlantic, which was looking to converge video, voice, and data services, failed in its bid for Tele-Communication Inc. (TCI). In 1994, Viacom acquired Paramount for its programming content. In 1995, Disney agreed to buy Capital Cities/ABC for its TV network,

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Westinghouse bought CBS for access to one third of U.S. households, and Time Warner purchased Turner Broadcasting to integrate cable programming and networks ("Telecom's New Age," 1996).

In 1996, US West took over Continental Cablevision and crossed from telephone into cable services (Brown, 1996), Southwestern Bell Communications (SBC) acquired Pacific Telesis to become a national telephone and wireless player, Bell Atlantic merged with NYNEX for the profitable long-distance telephone services, and MCI was tentatively acquired by British Telecommunication to create global services. Later on, both GTE and WorldCom tried to buy MCI in 1997 to dominate the long-distance market. Microsoft, the computer software giant, bought WebTV and invested in a 10% interest in Comcast Corp. to combine Internet and entertainment businesses. There was also a surprising, but failed, attempt by AT&T to acquire SBC Communications.

After the passage of the Telecommunications Act of 1996, the major players in the telephone and cable industries, regional Bell operating companies (RBOCs) and multiple system operators (MSOs), were poised to legally invade each other's markets. The result would be to change the original distinct markets into a single integrated multimedia industry. This study analyzes one of the mergers, that between US West and Continental Cablevision Inc. The purpose of this research is to analyze this merger within the context of modern merger and acquisition theory and the industrial organization model. From the historical development of communications industry, technological progress and policy deregulation have been the two major forces changing industrial market structures. Technology erodes boundary lines and deregulation plays another key role to remove the barrier entry of cross-market structure. This research illustrates the rationales of merger from this case to indicate the impact of the 1996 Act and apply considerations to future mergers of other RBOCs and MSOs.

TECHNOLOGY ERODING BOUNDARIES

Irwin (1984) argued that the characteristics of technology impact the entry process into the telecommunications field. They foster productivity by multiplying the features and functions of hardware and software. As a result, product options expand (more and new substitutes), costs decline, prospects for profit increase, and capital investment as an economic barrier diminishes (pp. 45–46). In addition, technology also erodes boundary lines. Not only can it alter the structural lines within an industry, but it also erodes lines along geographic, spatial, sectoral, and global dimensions. As a result, boundary lines are no longer static or isolated and every market enters into a dynamic flux in which the competitors of today and the competitors of tomorrow are not easily discerned.

As telephone networks provide video and data communication services, cable modems carry high-speed data and voice switched messages, and computer networks transfer voice and video data, the boundaries of the traditionally separated industries of telephone, cable, and computer are blurring. The interaction between technology and conditions of entry creates a new dynamic of intensified competition and an increased flow of new products. These factors fuel each other and intensify the process, creating an ever-accelerating spiral of new competition and barrier disintegration (Litman & Sochay, 1993).

CHANGES OF THE 1996 ACT TO ENTRY AND MERGER

Prior to the Telecommunications Act of 1996, the telephone and cable industries were prohibited from providing each other's services. For example, the Cable Communication Policy Act of 1984, amended section 613, prohibited telephone companies from providing video program services to subscribers located within their designed service areas, and moreover, they were not allowed to offer such services through an affiliate owned, operated, or controlled by the telephone company. The Telecommunications Act of 1996 is radically changing the market structures of the traditional electronic media and telecommunications industries. It deregulates the barriers to entry between both the cable and telephone industries and allows them to enter each other's service areas.

However, although maintaining the "two-wire" dream of direct head-to-head competition between cable and local telephone companies, the Telecommunications Act provides continued restrictions on mergers and buyouts between cable and local telephone companies within their respective service areas. Neither cable nor telephone companies can own more than a 10% interest in the other within their service areas, nor can they enter into joint ventures in the same market. Cable or telephone companies are allowed to buy each other out, in markets of less than 35,000 subscribers that are outside urban areas, although buyouts in these smaller rural areas can not exceed in aggregate more than 10% of the households in their service area (Section 652).

PRIOR FAILED MERGERS OF RBOCs AND MSOs

Before the deregulation of the 1996 Act for cross-ownership of cable and telephone companies, the most dramatic alliances were the announced $30 billion merger of Bell Atlantic and TCI, and the $5 billion partnership of Southwestern Bell and Cox Cable in 1993. Both failed, however, because of an inability to agree on the valuation of the companies. The Federal Communications Commission (FCC) rate regulation of cable, which was reducing and capping cable revenues, was partly to blame (Baldwin, McVoy, & Steinfield, 1996, p. 12). To analyze the failed mergers, Whalen and Litman (1997) concluded that changes in the market price of the firms' stock, the presence of large individual shareholders, and firm size and relatedness may be important in the demise of merger negotiations. However, conflicts in corporate culture and personality clashes play the largest role in short-circuiting a media merger.

The technical, regulatory, and cultural hurdles caused the proposed merger between Bell Atlantic and cable giant Tele-Communication Inc. to collapse. Soon after came the demise of a major joint phone–cable venture between SBC Communications Inc. and Cox Communications Inc. Although deregulation allows cable and telephone to enter each other's service areas, comparing the prior failed mergers of RBOCs and MSOs, what then is the rationale behind the merger of US West and Continental Cablevision?

RESEARCH QUESTIONS

The merger of US West and Continental Cablevision was the first deal announced after the passage of the new federal telecommunications legislation. Understanding the rationales of searching economic efficiencies and market power through this case study may help to predict future market structures and the conduct of the telephone and cable industries.

Question 1: What are the rationales behind the merger of US West and Continental Cablevision, such as the expected economics of scale and scope, vertical integration, or synergies?

Question 2: In addition, how have other RBOCs and MSOs responded to this merger and to the deregulation of the Telecommunications Act of 1996?

PRIOR RELATED RESEARCH

Most of the research related to the 1984 Cable Communications Policy Act prohibited RBOCs from providing video programming to subscribers in their telephone service areas. The rights of cross-ownership, alliances, or mergers between RBOCs and MSOs are examples of research topics (Baker, 1994; Bresnahan, 1995). There is other research related to market structure and possible cross-entry of telephone and cable industries.

Chan-Olmsted and Litman (1988) and Chan-Olmsted (1996) found that the national cable concentration ratio is continuously increasing. The biggest 10 MSOs have controlled over 80% market share, and most of them are also monopolies in their territories (less than 2% of cable systems are overbuilt). Although a cable service area is franchised by the city and is much smaller than that of the state, some MSOs exchange or merge system clusters, similar to the market structure of RBOCs, to prepare for economies of scale. Therefore, both RBOCs and MSOs control most of the territories of cable and local telephone services. In the meantime, the two biggest MSOs, TCI and Time Warner, have obtained enough subscribers and capital to compete with RBOCs.

To analyze cross-entry, Johnson and Reed (1992) evaluated whether telephone companies could successfully enter into cable television. They concluded that even if all legal entry barriers were eliminated, telephone companies would face dim prospects for competing with cable television operators in the transport of video services, at least during this decade. They reasoned that the economic characteristics of the fiber-based integrated broadband networks of interest to telephone companies are not promising. Unless the demand for switched video is strong, households will continue to be served separately by cable television networks and by switched narrowband telephone during the 1990s, and probably into the early part of the 21st century. Johnson (1994) said that cable companies would have an advantage in potential fiber video services because cable already passes more than 95% of the nation's homes with broadband facilities. Cable companies can more easily upgrade their systems for expanded broadband services as well as build scale economies in combining video and telephone services on the same network.

In addition to such potential barriers to entry, RBOCs lack experience in the entertainment business and programming content. As a result, it becomes easier to acquire or merge with established cable companies. Therefore, except for TCI and Time Warner, most other MSOs are much smaller than RBOCs (see Table 1),

TABLE 1
Fortune 500, Telecom's Latest Standings

Rank		*Previous Rank*	*1996 Sales*
7	AT&T	5	$74.5 billion
16	Hewlett-Packard	20	$38.4 billion
24	Motorola	24	$27.9 billion
41	GTE	38	$21.3 billion
43	Intel	60	$20.8 billion
53	BellSouth	49	$19.0 billion
59	MCI	68	$18.5 billion
77	Ameritech	84	$14.9 billion
82	Spring	80	$14.2 billion
85	SBC	93	$13.9 billion
91	Nynex	85	$13.4 billion
99	Bell Atlantic	83	$13.1 billion
102	US West	106	$12.9 billion
112	Viacom	105	$12.1 billion
141	Time Warner	163	$10.1 billion
154	Pacific Telesis	144	$9.6 billion
187	TCI	190	$8.0 billion

Note. Data from Rules of the Game, by Renee Saunders, April 14, 1997, *Telephony,* p. 12. Copyright 1997 by Telephony. Adapted with permission.

making them great targets for RBOCs to enter broadband network businesses. In addition, Foley (1992) analyzed the economic factors underlying telephone company efforts to enter home video distribution. He found that there are limited prospects for revenue growth in the local loop services, and therefore, the vast additional capacity of new technologies could help to increase the potential revenues from home video services. On the other hand, MSOs need the big revenue of RBOCs to financially support their upgrades to enter telephone and data communication services.

Ozanich and Wirth (1993) identified four factors driving media mergers and acquisitions: (a) the growth of media, (b) significant barriers to entry increasing interest in existing firms with established market share and cash flow, (c) relaxation of ownership limits, and (d) tax advantages for buyers. According to DRI/McGraw-Hill, the integrating multimedia industries will account for $1 trillion in annual revenues by 2000 ("Telecom's New Age," 1996), and the barriers to entry exist in the near monopolies of both cable and telephone companies. Mergers could happen after the deregulation of cross-ownership between RBOCs and MSOs.

Baldwin, McVoy, and Steinfield (1996) mentioned that although some RBOCs and MSOs could still survive in their original separated markets in an information superhighway environment, converging video, voice, and data communication services could be the possible trend, depending on the technological progress and consumer adoption. However, the questions are how and why US West Media Group and Continental Cablevision Inc. would merge together now, while other RBOCs and MSOs continue to build their own integrated broadband networks or separate cable and narrowband networks during this period.

THEORIES OF RESEARCH METHOD APPLIED

Modern merger and acquisition theory and the industrial organization model can help to systematically analyze the merger of US West and Continental Cablevision. The contribution of the industrial organization model is that the change of market structure will affect the firms' conduct and strategies, and vice versa. The Telecommunications Act of 1996 allows cable and telephone companies to enter each other's service areas, which releases the barrier to entry of government regulation and changes the equilibrium market structure of both the cable and telephone industries. The firms with convergence services will apply market power to implement their strategies through such means as pricing, product differentiation, and research and development, which may result in the increased revenue and efficiencies (Schmalensee, 1989).

Although the 1996 Act still prohibits mergers and buyouts between cable and telephone companies within their respective service areas, RBOCs and MSOs still could merge if there is no overlap in their service areas. Under the antitrust analysis of the 1997 U.S. Department of Justice Merger Guidelines, there are several measurements considered for approval. These include definitions of product and market geography; measurements of market concentration, such as the top four firms (CR4), the top eight firms (CR8), or HHI (concentration ratio, Herfindahl–Hirschman Index, calculated by summing the squared market shares of all firms in a given market); types of merger (horizontal, vertical, or conglomeration); and impact of the merger on the marketplace (procompetitive or anticompetitive). Checking those changes postmerger can permit one to determine not only whether the merger will be approved, but also the rationale behind it.

CASE STUDY: RATIONALES BEHIND THE MERGER OF US WEST AND CONTINENTAL CABLEVISION

Just 4 weeks after Congress passed legislation permitting sweeping ownership changes in the telecommunication industry, US West and Continental Cablevision agreed to a $10.8 billion merger. US West would purchase all of Continental's stock for $5.3 billion and would assume Continental's debt and other obligations valued at $5.5 billion. The acquisition price worked out to an estimated $2,100 per subscriber and 11.1 times the projected 1996 earnings before interest, taxes, depreciation, and amortization of $830 million (Brown, 1996). Table 1 shows detailed corporate information about US West and Continental.

Revenue Diversity

Foley (1992) found, from the Standard & Poor's (S&P) and Moody's analyses, that the performance of RBOCs has lagged behind the S&P's 500 stock index since the breakup of AT&T. The growth rate of the telephone group is much slower than that of the 500 stock average. In short, the telephone companies need to diversify because their present market revenues are stagnant. On the other hand, video-related industry segments have been relatively profitable in recent years. Foley (1992) contrasted their high growth with the profits of companies in the S&P's 500 stock index. The rapid growth in both broadcasting and entertainment segments is in sharp contrast to the limited performance of the telephone index.

Fortune magazine (Kupfer, 1996) illustrated that US West had lower annual average returns compared to other RBOCs after the AT&T breakup (August 1983 to September 1996). In addition, because of the sparse population in its service area and only 10% of U.S. long-distance calls either start or finish in its territory, US West has less to gain than the other RBOCs.

As Foley (1992) mentioned, there are several economic factors that make video service a particularly appealing route for local telephone companies to diversification: (a) technologies are changing in ways that make combining voice and video increasingly attractive, (b) the home video market has substantial revenues and good growth potential, and (c) there are economies of scope that suggest that home video would be a good fit with the telephone business.

The cable television industry appears to provide the best current suggestion of revenues that could be expected from home video distribution. Table 2 shows that the cable TV industry is continuing to grow and the revenue per average subscriber was up to about $412 in 1995. In 1996, the industry became even more prospected to increase revenue. The Telecommunications Act terminated rate regulation of cable programming service tiers for small cable systems immediately, and for all other cable systems on March 31, 1999. No rates of the cable system—not even rates for basic service—are regulated if the system is subject to effective competition. The Act adopts an alternative option for effective competition: when a local exchange carrier that is unaffiliated with the cable operator serving the area offers, directly to subscribers in the franchise area, video programming services comparable to those of the cable operator. According to the Consumers Union, cable rates jumped 11.7% between February 1996 and July 1997, whereas inflation rose 3.6% over the same period (New York Times, Sept. 24, 1997). In addition, except for the traditional video service, Forrester Research Inc. predicted that by 2000, as many as 7 million homes may have cable modems pulling in $1.3 billion in new revenue ("Telecom's New Age," 1996).

Vertical Integration of System and Programming

Smith (1991) pointed out that corporations are beginning to realize that control over information and software is critical to long-term survival. Not only is it cheaper to acquire control vertically over programming than to buy from competitors, but it also minimizes risk. No matter what new delivery systems emerge due to technological innovation, programming will still be needed to fill the new capacity. After the merger, US West could apply Continental's valuable programming and experience in cable operation to marketing video services in its original telephone area. US West owns stakes in programming services, not only from Time Warner but also from Continental Cablevision. This includes dozens of programming services such as Turner Broadcasting Services Co. (TBS), the Food Network, and New England Cable News, making it the largest programming owner among RBOCs (see Figure 1). In addition, because US West sued Time Warner over the merger of TBS, they probably have difficulty cooperating. Therefore, US West needs to continuously have interests in programming production, and this market structure of vertical integration from production to distribution to exhibition is very important for US West to aggressively begin its multimedia services.

TABLE 2
Revenue Distribution of Cable Television Industry in 1993–1995

	Total Revenue[a]	*Annual Revenue per Average Subscriber*	*Basic Revenue*[a]	*Pay Channel Revenue*[a]	*Pay-Per-View Revenue*[a]	*Advertising Revenue*[a]	*Home Shopping*[a]
1993	22.47	399.75	15.0	4.6	0.45	1.0	0.11
Change (%)	6.7	3.2	12.9	–7.1	11.9	15.5	25.6
1994	22.79	389.50	15.0	4.5	0.48	1.1	0.13
Change (%)	1.4	–2.6	0.0	–2.2	7.1	9.5	12.4
1995	25.09	411.90	16.9	5.1	0.80	1.2	0.14
Change (%)	10.1	5.8	11.1	12.0	68.0	18.9	13.4

Note. Source = FCC Third Annual Report.
[a]In billions of dollars.

<table>
<tr><th colspan="2">US WEST Inc.</th><th>Continental Cablevision Inc.</th></tr>
<tr><td colspan="2">• 1995 revenue: $11.7 billion
• 1994 net income: 1.4 billion
• Telephone lines: 14.3 million
• MediaOne Cable system in Atlanta: 0.5 million subscribers
• Jointly 25.51% managed Time Warner Entertainment:
• Home passed: 19 million, Basic subscribers: 12 million
• HBO, Turner Broadcasting …</td><td>• 1995 revenue: $1.8 billion
• 1995 EBITDA: $738.5 million
• U.S. homes passed: 7.3 million
• U.S. basic subscribers: 4.2 million; 25 of the top 100 markets; half of the systems upgraded to 550 mhz or 750 mhz by the end of 1996</td></tr>
<tr><td>US WEST
Communication Group</td><td>US WEST
Media Group</td><td rowspan="2">• Primestar DBS service (10%)
• Teleport (20%)
• a dozen cable networks:
Viewer's Choice (10%),
E! Entertainment (10.5%),
Music Choice (10.5%),
Sunshine Network (8%),
Prime Sport (17.5%),
New England Cable News (50%),
Television Food Network (14.8%),
The Golf Channel (20%),
Outdoor Life (22.7%),
SpeedVision (21.7%)
Home Shopping Network (1%),
Turner Broadcasting (4.7%)</td></tr>
<tr><td>• local and long distance telephone services in 14 states.
• Intellectual telecom services: Caller ID, Voice Mail, Call Waiting
• High-speed data networking & equipment</td><td>• Broadband: integrated digital video, Internet, and telephone services.
• Wireless: Cellular &PCS
• Directories & Information Services</td></tr>
<tr><th colspan="3">Post-Merger of US WEST Inc. and Continental Cablevision Inc.</th></tr>
<tr><td colspan="3">• The maps of post-merger US WEST crossing nearly all US states.
• 14 states with 26.2 million domestic homes passes, 25 million customers of telephone services
• 16.3 million domestic basic cable subscribers, the third largest cable operator
• 60 of the top 100 American markets
• top 5 cities in the US accounting for half of the subscribers, and the median income is 10-12 percent higher than average.
• 17 clusters with greater than 250,000 subscribers</td></tr>
</table>

Source: Broadcasting & Cable, March 4, 1996, and company profiles of US WEST and Continental

FIGURE 1 Detailed Corporate Information of US West and Continental.

Horizontal Integration for Economies of Scale and Scope

Under Section 652(a) of the 1996 Act, RBOCs and MSOs cannot own more than 10% financial interest in each other within the same service area. Continental would have to divest itself of the in-region systems before US West could acquire Continental's assets. Those included about 370,000 subscribers in Utah, Arizona, Iowa, Idaho, and Minnesota, accounting for 9% of Continental's reach (FCC, 1996b).

However, as shown in Figure 1, the postmerger US West would include 26.2 million domestic homes served by cable TV services and 16.3 million domestic basic cable subscribers. It is the third largest cable operator, serves 60 of the top 100 U.S. markets, and has 17 clusters of more than 250,000 subscribers in the top 5 U.S. cities, accounting for half of the subscribers in cities where the median income is 10% to 12% higher than average. In addition, after the upgrade of its cable networks to provide telephone services, US West could serve its potential original 25 million customers plus 26.2 million cable customers with telephone services. The postmerger territory of US West could cover a higher density of population than the original one and extend the business from coast to coast.

The new merged US West is applying the advantages of the merger of telephone and cable services, by marketing a package of telephone, cable, and Internet access services through its new company called MediaOne. MediaOne is a broadband, two-way capabilities network, and eventually it will provide digital video, high-speed data, Internet access, and intellectual telephone services. For example, following the beta launching in metro Atlanta at the beginning of 1998, MediaOne will begin to provide a combination of cable, telephone, call waiting and caller identification, and cable modem services (Multichannel News, Nov. 24, 1997). As Clarke and Brennan (1990) stated, shared resources form the heart of synergistic relationships, US West can apply billing systems to promote both cable and telephone businesses, or reduce the administration budget to market multimedia services.

IMPACTS ON THE CABLE TV MARKET

In the national cable market, after the US West–Continental merger, the HHI of 1,326 showed a moderately concentrated market, and both CR4 (61.4%) and CR8 (76.3%) showed a very concentrated market (Table 3), according to the merger guide of the Department of Justice. The acquisition of Continental (0.5 million subscribers of MediaOne in Atlanta and 4.2 million subscribers of Continental) makes US West the largest cable player by far of any RBOC. However, it did not make a big impact on the national horizontal cable market, because there were small changes in CR4, CR8, and HHI after the merger, and the two biggest MSOs, TCI and Time Warner, still controlled the major market shares. In addition, asymmet-

TABLE 3
Market Share of Multiple System Operators (MSOs)

Rank	*MSOs*	*1995 End (%)*	*1996 End (%)*	*Revenue (Billions)*	*Programming*
1	TCI	25.9	27.97	8.0	25
2	Time Warner	16.2	18.94	6.0	16
3	Continental/US WEST	6.8	7.69	4.0	9
4	Comcast	5.6	6.83	3.5	5
5	Cox Cable	5.3	5.32	2.5	5
6	Cablevision	4.4	4.47	1.5	3
7	Adelphia	2.5	2.75	0.6	—
8	Jones	1.9	2.40	0.4	1
	CR4[a]	54.5	61.40		
	CR8[b]	67.6	76.33		
	HHI[c]	1098	1326		

Note. Programming only for interests over 5%; Viacom owns 11 channels. Source = FCC Third Annual Report of 1996.

[a]CR4 = Concentration Ratio, aggregate market share of the largest four firms. [b]CR8 = Concentration Ratio, aggregate market share of the largest eight firms. [c]HHI = Herfindahl–Hirschman Index, Σ Si ^2 (*Si* = market share of firm *i*).

rical digital subscriber line (ADSL) technology might allow telephone companies to upgrade their facilities to deliver video services, but ADSL, a network with very limited bandwidth capacity, cost as much per home as building a hybrid fiber coaxial network (Baldwin, McVoy, & Steinfield, 1996). It is not economically efficient for US West to expand its national cable services through telephone lines.

After the merger with Continental Cablevision, US West would own interests in 12 additional programming channels, except for its original 25.5% interest in Time Warner Entertainment. However, the vertical integration of programming supply would probably not increase market power of US West enough to negotiate prices with other cable systems. Unlike TCI and Time Warner, which had large interests in their programming, US West owned less than 10% interest in most channels. US West could not favor its own new launching programming channels through the national horizontal market share either, because an 8% national market share is not high enough to deny programmers (Baldwin et al., 1996). However, with the deep pockets of US West, the cable services of Continental Cablevision would have financial and technological support from US West to upgrade the cable system and add switching systems into broadband cable networks.

IMPACTS ON THE TELEPHONE MARKET

As the FCC recognized in the Time Warner–US West matter, "telephone company investment in cable television outside its region is likely to increase competition for traditional telephone services, and to expand consumer choices..." US West intends to use Continental's existing clustered broadband networks as "a platform for delivery of video, data, telephone, and multimedia service..." (FCC, 1996b)

US West has fewer revenues and subscribers among the RBOCs (especially after the other RBOCs' mergers), partially due to its large territory and sparse population density, and has to expand its market to other related services in advance. The merger of US West and Continental Cablevision could disrupt the equilibrium of the local telephony monopoly by its entering other RBOCs' monopolistic territories through Continental's cable network.

US West has already seen the potential for marketing telephony via cable systems through its United Kingdom-based prototype system Telewest. US West started soliciting customers for a beta launch of cable-telephony services at the end of 1997 in the Atlanta area (Multichannel News, Nov. 24, 1997), and expects all Continental cable systems to be in the local phone business within 3 to 5 years. In addition, US West is working with Time Warner to roll out coaxial phone service to 85% of the cable operator's 11.5 million subscribers by the end of 1998 (Brown, 1996). This would allow US West to serve customers from the areas of other RBOCs, such as NYNEX, BellSouth Corp., Ameritech Corp., and SBC Communications, through increasing local telephone competition.

There is nearly $100 billion in potential revenue in the U.S. long-distance telephone market. Under the restriction of the modified final judgment, RBOCs were prohibited from this highly profitable service, although they could receive compensation from interconnection of long-distance calls. If RBOCs could link the end-to-end local telephone services and the distance-insensitive interexchange services, they would begin to enter the most profitable long-distance telephone services. The postmerger US West could combine its original territory and new ones from the merger to cover coast-to-coast telephone services, which would improve the problem of its originally low population density.

However, telephone services over cable, or cable TV over phone lines, remains prohibitively expensive. Just upgrading cable TV systems to carry two-way conversations can be costly. By 1999, cable companies will spend $2.36 billion a year to upgrade their systems for new services such as voice, up from $1.78 billion a year ago (Business Week, April 8, 1996, p. 78). Will the investment pay off? The experience of Time Warner, which is testing local service in Rochester, New York, is not encouraging. Despite offering discounts of up to 10%, sign-ons for the service have been slow. Rochester Telephone says it has only lost 3% of its customers to the media giant and nine other rivals since the market was opened up a year ago. In 2005, the cable industry will generate $5.9 billion in telephone revenues. However, the total market will have nearly doubled to $300 billion ("Telecom's New Age," 1996).

Cable operators do not have enough capital and technology, and the safest bet for them is to team up with phone companies. TCI, Cox, Comcast, and Continental have been doing that for years through their jointly owned Teleport Communications Group, a competitive access provider that offers voice and data services to businesses in major U.S. cities. TCI, Cox, and Comcast are now aiming at the consumer market through their joint venture with Sprint, the third largest long-distance carrier. Their plan is to build a nationwide personal communications service (PCS) network, a low-priced version of cellular that may be able to compete with wired local calling. US West is part of a joint venture with AirTouch, Bell Atlantic, and NYNEX to enter the PCS market. The venture, called PrimeCo Personal Communications, has secured licenses in 11 markets nationwide, with a potential of nearly 60 million customers. The postmerger US West could use its Continental Cablevision systems, with existing towers and networks, to enhance its original cellular phone and new PCS services.

OTHER RBOCs' AND MSOs' GENERAL STRATEGIES

For most companies, the regulations and technologies for local telephone, wireless phone, cable TV, and the Internet are changing so fast that it is too bewildering to commit to a single vision of the future. Based on different original advantages, those players have different philosophies and strategies for future development (*Wall Street Journal,* 1996).

As US West merged with Continental outside its telephone service areas to reach toward its horizon, most of the RBOCs were settling on strategies closer to home, both geographically and conceptually. Consolidation seems to be the order of the day as strong RBOCs swallow weaker ones. Bell Atlantic merged with NYNEX to dominate the Eastern seaboard. SBC will ingest Pacific Telesis, surrounding US West like the thumb and fingers of a mitten. Ameritech, in the Midwest, remains a solo act and is establishing several cable systems from scratch. In the fast-growing South, BellSouth is having great success with high-profit services such as caller ID and is emerging as a big player in wireless.

On the other hand, MSOs not only try to upgrade their cable systems to provide wired telephone and high-speed data services, but also invest in wireless PCS and Direct Broadcast Satellite (DBS), where several joint ventures span cable and telephone industries. For example, TCI, Comcast, Cox, and Continental are investors in Primestar partners, a digital satellite service reaching about 1 million households. TCI, Comcast, Cox, and Sprint are combining for PCS, and Time Warner and Bellsouth are combining for telephone interconnection. Moreover, after spending millions on developing new technology, MSOs and RBOCs received a lesson in developing interactive TV. They are now furiously rewriting their strategic plans to offer interactive services, and to develop the cable modem, the hottest new technology. For example, TCI's @Home, and Time Warner's Road Runner are similar to MediaOne (Multichannel News, 1997).

The long-distance carriers—AT&T, MCI, and Sprint—seem to be currently focusing on global services through cooperating with other foreign telecommunications giants, as well as wireless services, such as cellular phones, PCS, and DBS. For example, AT&T invested in DirectTV, and TCI has held talks with a joint venture of MCI and News Corp. to launch another high-powered DBS service. The strategies of wireless in cooperation with global players permit a company to bypass the local telephone and cable network to provide telephone, video, and data communication services.

OTHER MERGERS AFTER THE CASE OF US WEST AND CONTINENTAL

After the passage of the Telecommunications Act of 1996, not only did the merger of US West and Continental Cablevision continue, but also there are other pending mergers among the seven RBOCs, namely between SBC–Pacific Telesis and Bell Atlantic–NYNEX. In addition, other long-distance and computer giants are also joining the wave of mergers, including Microsoft–WebTV and GTE/WorldCom–MCI. Their rationales to merge were similar to those behind the merger of US West and Continental. They were eager to have the advantages of economies of scale and scope from integrated multimedia services, and to expand market territory early, warding off a future takeover.

Mergers Between RBOCs and RBOCs

Originally, RBOCs seemed to hold their monopoly territories, as they were set up with a regional focus to keep customer-service levels high. Over the last decade, the RBOCs have established independent identities and corporate cultures that might be difficult to combine. However, some are suffering from the distractions of warding off new competitors in their own backyard and finding new out-of-region markets in which to compete. The impetus for the current move to join forces is burgeoning competition and demands from customers for better, simplified service. RBOCs are seeking the right combination of assets for offering a whole menu of local, long-distance, and wireless services. To package these services, some carriers that currently lack the right mix of products must find partners or acquisitions (*New York Times,* 1996a).

The driving force behind the SBC–Pacific Telesis merger is the need for carriers to gain geographic clout, economics of scale, and better control of both ends of the phone or data calls no matter where they travel. SBC has good experience and strong market position in cellular phone, and Pacific Telesis has focused on developing digital wireless video service. They can focus on wireless video, telephone, and data communication services, and also the high-profit area of long-distance telephone services.

The long-distance market was a key incentive driving the Bell Atlantic–NYNEX merger. By knitting together their 12-state region from Maine to Virginia, the two RBOCs would have a crack at almost $14 billion annually in long-distance traffic that originates within their markets. The combined company would be second in size only to AT&T in the telecommunications industry, with annual revenues of about $28 billion, earnings of more than $3 billion, and 36 million home and business customers (*New York Times,* 1996b).

Mergers and Joint Venture in Interexchange Carriers (IXCs) and Computer Players

The WebTV acquisition—Microsoft's largest Internet-related purchase—represents the software giant's desire to tap into an unreached part of the consumer market. With broadcasting and cable television, magazine, and newspaper advertising revenues estimated at anywhere from $25 billion to $45 billion a year, WebTV is a way for Microsoft to tap into that market (Broadcasting and Cable, July 14, 1997, p. 46). In addition, Microsoft invested $1 billion for 10% interest in Comcast to combine cable and Internet businesses (Multichannel News, July 8, 1997, p. 1).

The British Telecom/MCI Concert alliance and Sprint's Global One partnership with France Telcom and Deutsche Telecom both pose large-scale threats to AT&T, which may lead it to cooperate with Italy Telecom for globalization. However, the local strategy of a combined AT&T and SBC is more difficult to envision, even though AT&T may soon have no choice but to enter the local market. It currently relies too heavily on outsourcing wired and wireless local connections to competitive local exchange carriers. Recently, GTE and WorldCom also joined to competitively bid for MCI after British Telecom and become the second largest long-distance player.

CONCLUSION

Although the Telecommunications Act of 1996 deregulates the restriction of cross-ownership of cable and telephone companies, there is the continued restriction on merger and buyouts between RBOCs and MSOs within their respective service areas. To continuously process this merger, Continental had to divest itself of the in-region systems before US West could acquire its assets, accounting for about 9% of total cable subscribers. This restriction of merger and buyouts would affect other future mergers if there are huge overlapping territories of subscribers between those RBOCS and MSOs.

The rationales behind the merger of US West and Continental Cablevision are: (a) revenue diversity from new services; (b) vertical integration for market power of programming; and (c) synergies from integrating video, voice, and data communications in the multimedia. US West has worse financial performance than other RBOCs, and has to increase its revenues from other diversified services. US West expanded its territory to high-population-density areas through the merger. However, there was little impact on both the national horizontal cable and local telephone markets after the merger of US West and Continental, because it is still costly to converge video, voice, and data into a single integrated network at this time.

After the merger of US West and Continental, in the cable industry, small cable operators would merge to become bigger, not only to compete with other MSOs, but also because of new entries from telephone, wireless, or DBS. As mentioned by the FCC (1996a), noncable multichannel video programming distributor (MVPDs) subscribership has been increasing an average of 22% per year since 1990, with cable subscribership currently down to 89% of all MVPD subscribers. The possible final market structure of the cable industry will be similar to the local telephone territory. Perhaps five to seven MSOs will exist. Other MSOs, except TCI and Time Warner, will probably become merger targets of other huge companies in telephone, computer, or other industries. In addition, RBOCs would invest in other multimedia services, including video, data communication, and long-distance telephone services, because their original local telephone territories have begun to face strong competition from other new entries. However, the merger with MSOs is not the only scenario. Other RBOCs also begin to invest in DBS, Multichannel Multipoint Distribution System (MMDS), and PCS, or even merge with each other to compete with other future mergers of cable and telephone companies.

REFERENCES

Baker, E. C. (1994). Merging phone and cable. *Hastings Communication/Entertainment Law Journal, 17*, 100–136.

Baldwin, T. F., McVoy, S. D., & Steinfield, C. (1996). Convergence: Integrating media, information, & communication. Thousand Oaks, CA: Sage.

Bresnahan, A. (1995). *The (unconstitutional) telco–cable cross-ownership ban: It seemed like a good idea at the time.* Unpublished manuscript, University of Michigan, Ann Arbor.

Brown, R. (1996, March 4). US West buys Continental. *Broadcasting & Cable,* 12–13.

Cauley, L., & Robichaux, M. (1996, February 28). US WEST Media to pay $5.3 billion to buy Continental Cablevision. *Wall Street Journal,* p. A1.

Chan-Olmsted, S. M. (1996). Market competition for cable television: Reexaming its horizontal mergers and industry concentration. Journal of Media Economics, 9(2), 25–41.

Chan-Olmsted, S. M., & Litman, B. R. (1988). Antitrust and horizontal mergers in the cable industry. *Journal of Media Economics, 1*(3), 3–28.

Clarke, C. J., & Brennan, K. (1990, April). Building synergy in the diversified business. *Long Range Planning,* 9–16.

Colman, P. (1996). US West, Continental Officials reassure investors; merger will go through. *Broadcasting & Cable, 126*(33), 61.

Federal Communications Commission. (1996a). *Annual assessment of the status of competition in the market for delivery of video programming* (Cable Services Bureau Third Annual Report). Washington, DC; Author.

Federal Communications Commission. (1996b). *US WEST Inc. and Continental Cablevision, Inc.* (Cable Services Bureau Report., Memorandum Opinion and Order). Washington, DC: Author.

Foley, J. M. (1992). Economic factors underlying telephone company efforts to enter home video distribution. *Journal of Media Economics, 5*(3), 57–68.

Gambles and successes at the top. (1996, April 2). *New York Times,* p. C9.

Irwin, M. R. (1984). *Telecommunication America: Markets without boundaries.* Westport, CT: Quorom.

Johnson, L. L. (1992). *Telephone company entry into cable television: Competition, regulation, and public policy.* Santa Monica, CA: Rand.

Johnson, L. L. (1994). Toward competition in cable television. Cambridge, MA: The MIT Press.

Johnson, L. L., & Reed, D. P. (1992). Telephone company entry into cable television. *Telecommunications Policy,* March, 122–134.

Kupfer, A. (1996). Even Telco cowboys get the blues. *Fortune, 134*(7), 144.

Landler, M. (1996, February 28). US West Continental ambitions; thanks to communication law: A Baby Bell pressures to be a cable power. *The New York Times,* p. C1.

Litman, B. & Sochay, S. (1994). The emerging mass media environment. In R. E. Babe (Ed.), Information and communication in economics (pp. 233–265). New York: Kluwer.

Maney, K. (1995). *Megamedia shakeout: The inside story of the leaders and the losers in the exploding communications industry.* New York: Wiley.

McConville, J. (1996). Cable concentrates on future: Consolidation continues at record pace as MSOs prepare to deliver phone, digital services. *Broadcasting & Cable, 126*(27), 54.

NYNEX and Bell Atlantic reach accord on merger. (1996, April 22). *New York Times,* p. A1.

Ozanich, G. W. & Wirth, M. O. (1993). In A. Alexander, J. Owers, & R. Carveth (Eds.), *Media economics theory and practice* (pp. 115–133). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Phone ring for MediaOne. (1997, November 24). *Multichannel News,* p. 70.

Schmalensee, R. (1989). Inter-industry studies of structure and performance. In R. Schmalensee & R. D. Willing (Eds.), *Handbook of industrial organization* (pp. 951–1009). New York: Elsevier.

Smith, A. (1991). *The age of behemoths: The globalization of mass media firms.* New York: Priority Press.

Telecom's new age. (1996, April 8). *Business Week,* pp. 63–87.

The US WEST–Continental Cablevision merger closed last week. (1996, November 18). *Broadcasting & Cable, 126*(48), 105.

Unlike US West, most telecom firms aren't expected to dive into cable TV. (1996, April 8). *Wall Street Journal,* p. A3

Whalen, P. T., & Litman, B. R. (1997). Short-circuited mergers in the mass media: Credible and incredible evidence. In C. Warner (Ed.), *Media management review* (pp. 65–90). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.