Factors Affecting Future Share Price Performance

There are several significant issues that are likely to affect the performance of U S WEST shares over the next several years:

- interest rates;
- regulation;
- management execution; and
- AT&T/McCaw merger.

Interest Rates--Shares of the RHCs traditionally have been viewed as income-growth investments, and share-price performance has been closely tied to interest rates. With real rates at record lows, we believe price appreciation from further rate reductions is unlikely, and if interest rates begin to rise, RHC share prices may go down. However, it is not clear that share prices would underperform the overall market, which also may go down if interest rates begin to move up (Figures 15 and 16).

Figure 15

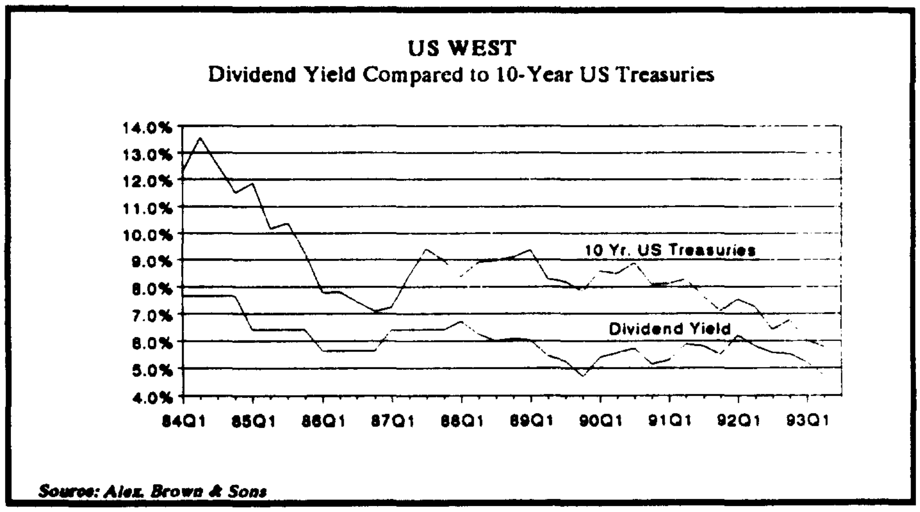
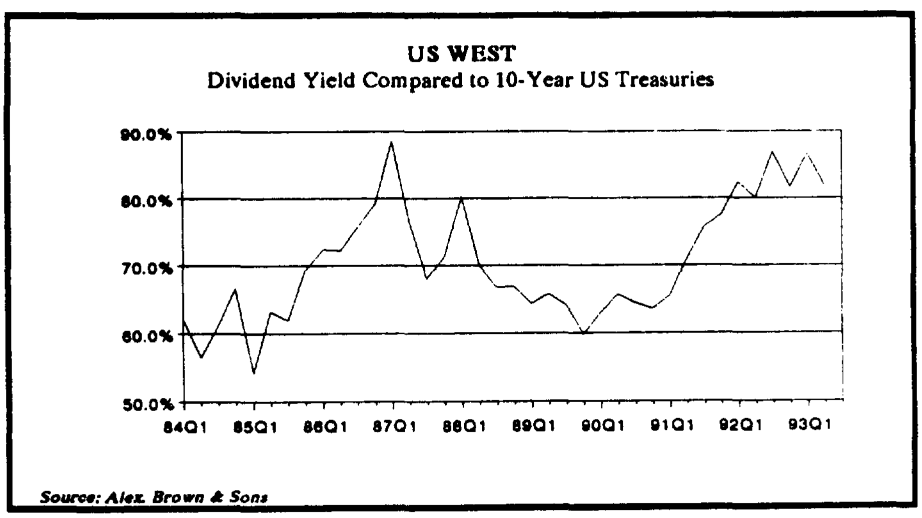


Figure 16



Regulation--There are several significant regulatory issues, mainly at the federal level, that will be important determinants of the timing and shape of future competition. We would focus on the following.

- The Modified Final Judgment (MFJ), which broke up the monopoly AT&T in 1984. Particular emphasis should be paid to the timing of the lifting of the prohibition of RBOC entry into inter-LATA toll because we believe it is likely to be preceded by AT&T and others being allowed to offer LEC services in some way. We expect this to occur over the next 2-3 years.

- FCC action that allows CATV companies, CAPs and out-of-region RHCs to offer alternative switched access in the local loop. Ameritech has put forth a proposal to open up its region to full-switched competition, however, we would not be surprised to see action by the FCC tied to some sort of PCS spectrum auction.

- PCS Spectrum Auctions. There appears to be strong bi-partisan support, both in the Congress, Administration and at the FCC for the rapid introduction of new wireless competition through an auction process. It is possible that the regulatory and legal machinery for the first auction could be in place by year-end. The shape and scope of these auctions may strongly influence investor perceptions about how competitive local access for wired and wireless services may become. There appear to be two prevailing views.

  (1) Two or three national licenses of 30-40 MHz. This result may pose the greatest threat to incumbent cellular and LEC service providers. Such a license structure is likely to fetch the highest prices in an auction because the amount of spectrum and national access could allow future PCS service providers to be price- and service-competitive for a full range of services from POTS to full mobility cellular services. U S WEST and the IXCs appear to expect such a result.

  (2) Five or six local/regional licenses of 20 MHz or less. This result in the near term seems to pose less of a threat to incumbent cellular providers because it may not allow new entrants enough spectrum to match the cost/service structure of the incumbent providers over time. However, such a result still poses a significant threat to both LECs and cellular where LEC customers may be willing to pay a premium over POTS for limited mobility and cellular subscribers may be willing to opt for lower-priced, lower-function services. We expect such a license structure to be

auctioned off at lower prices and result in less local access competition. Major proponents of such a result appear to be, as one would expect, most of the LECs and cellular service providers.

Management Execution--Successful management execution of U S WEST's strategy which we believe will be an important determinant of share price performance over the next few years, includes:

- the ability to cut costs and improve service levels on its existing network to offset and limit the effects of market share erosion;
- rapid rebuilding of its in-region network to support interactive video services and wireless PCS; and
- the efficient adding of new network revenues out-of-region that enhance and expand its revenue opportunities and position it over time to be one of a few national access service providers.

If management is able to successfully execute its strategy revenues and cash flow growth could substantially outperform the group over the next decade.

AT&T/McCaw Merger--We expect the announced merger of AT&T and McCaw to accelerate the RHCs' preparation time-table for competition, because we believe AT&T will eventually use McCaw's cellular access network as a PCS service provider to bypass the LEC.

Although U S WEST competes with McCaw for 62% of its POPs, we believe the overall effect of this announcement is positive for U S WEST because--

- Two of the most important players in communications have, by their announced merger, placed a vote of confidence in the same strategies as those of U S WEST:

  (1) the need for nationwide bond identity;
  (2) the trend toward wireless PCS;
  (3) an emphasis on residential customers; and
  (4) the importance of national visibility and scale.

- Although McCaw, under AT&T's ownership, can expect to be price competitive as it always has been, we expect AT&T to use network features and quality as its primary competitive thrust as McCaw has done and attempt to make price a secondary factor.

MANAGEMENT

In the highly competitive environment, we expect management's ability to adapt the Corporation to a new environment and execute its strategy is critical. U S WEST management is strong and diverse in experience. A significant number of top management have come from other competitive industries as opposed to traditional telephone operations. We believe U S WEST has among the most well-articulated strategies to face competition built around three value drivers:

- customer retention;
- lower costs; and
- the addition of new revenues.

In comparison with other competitive industries built largely around fixed cost networks U S WEST's management is correctly focused on these value drivers, in our opinion.

INDUSTRY OVERVIEW

Digital technology has revolutionized the processing and transmission of information over the last several decades. As the cost of moving information falls at an accelerating rate, it is breaking down the traditional barriers among the Computer, Media and Communications industries and is creating new competition and new opportunities.

The prime movers of the changing telecommunications landscape are--

- companies in search of new markets, such as:
  - telecommunications services companies and other utilities looking for opportunities to grow and to replace businesses lost to new competitors;
  - media and entertainment companies looking to leverage content into new markets; and
  - software and hardware companies looking to tap unserved users.
- policy makers who have to satisfy consumers' and industry participants' conflicting demands for:
  - access to advanced technology and new services;
  - protection from monopolistic business practices;

- national competitiveness in a global economy; and
- low prices.

Technology And Competition Are Driving Telecommunications Industry Change.

- Technology is rapidly driving down the cost of transmitting information. This accelerating decline is being facilitated by:
  - the replacement of traditional copper and coaxial cable infrastructure by fiber optics;
  - the increasing bandwidth capabilities of the existing copper and coax infrastructure using digital technologies; and
  - the availability of high-quality, high-capacity, private, wireless transmission technologies.
- Competition is emerging in the telecommunications industry as these new technologies break down the traditional rationale for "natural monopolies" and regulators seek to allow market forces to determine prices and services in this previously highly-regulated industry.

Market Forces

Technology and competition are creating a confluence of five very large U.S. industries: Communications, Media, Entertainment, Consumer Electronics, and Information Technology (see Figure 16). Some of the most important new business opportunities may develop in the areas of overlap, such as interactive video, video over telephone networks, telephone services over cable networks, and electronic information services. These trends create both enormous risks and opportunities for telecommunications service providers, particularly the LECs. In an environment of greatly expanded capacity and access, the LECs will be competing for:

- the potentially multibillion-dollar consumer markets for entertainment, communications, information, and education; and
- a share of the existing $150 billion mature voice communications markets.

Figure 17

Confluence of Market Forces

Industry	Market Size (In billions)
Communications	$200
Entertainment	$150
Education	$240
Information	$50
Publishing	$100

Source: Alex. Brown & Sons

Technology

We believe the critical technological challenges and opportunities faced by the LECs are the deployment of broadband platforms for video services in their wired infrastructure, and PCS (personal communications services) for wireless narrowband applications. The speed with which the telcos can deploy these new technologies may largely determine their ability to protect their existing customer franchises and add new revenue streams to replace traditional local access revenue lost to new competition. The importance of rapid broadband deployment is being driven mainly by:

- inroads made by CAPs for high-capacity business traffic; and
- the announced intentions of cable television companies to upgrade their broadband networks to provide switched-access to consumers.

The critical broadband technology issues for the telcos are:

-- the degree to which advances in compression technology that will allow broader band applications over the existing infrastructure appropriate to meeting the needs of significant segments of the user market;

-- the rapidly falling cost of fiber and the rate at which fiber can be deployed close to the home;

- -- how quickly broadband capabilities can be deployed by the RBOCs versus the rate at which new competitors can introduce new services; and

- -- the cost of upgrading the existing telco plant to provide broadband capabilities versus the CATV companies' costs of upgrading to provide switched services.

Wireless technologies threaten traditional narrowband voice and data revenues. New digital technologies (such as CDMA) allow much greater capacity over wireless infrastructure, along with toll-quality voice and privacy. With these technologies, wireless narrowband services can eventually be offered at small premiums to current wired telephone rates. Although deployment of PCS must await regulatory licensing of new spectrum and service providers, several LECs are moving aggressively to introduce wireless services on their cellular spectrum in order to preempt some of the new competition while creating new sources of revenue.

Additional Information Available Upon Request

Alex. Brown & Sons Incorporated maintains a net primary market in the common stock of McCaw Cellular Communications.

Within the past three years, Alex. Brown & Sons Incorporated has managed or comanaged the most recent public offering of British Telecommunications, plc.

American Telephone & Telegraph Corporation, Ameritech Corporation, British Telecommunications, plc., McCaw Cellular Communications, Southwestern Bell Corporation, Time Warner, Inc. and U S West stocks are optionable.

ALEX. BROWN & SONS
INCORPORATED

DIRECTOR OF RESEARCH

Denis J. Callaghan	*(410) 783-3195*

CONSUMER

Growth Retailers

Robert F. Buchanan, CFA	*(410) 783-3059*
Maria L. Medaris	*(410) 783-5331*
Linda D. Farquhar	*(410) 783-3243*
Christopher A. Feiss	*(410) 783-3259*
Christopher E. Vroom, CFA	*(410) 783-3146*
Barbara E. Miller	*(410) 783-3292*

Restaurants

Steven A. Rockwell, CFA	*(410) 783-3144*
Camille E. Humphries	*(410) 783-3145*
Michael A. Fineman	*(410) 783-5326*

ENVIRONMENTAL

Solid & Hazardous Waste Management, Air Pollution, Engineering & Industrial Services

Hugh F. Holman	*(410) 783-3254*
D. Cotton Swindell	*(410) 783-3037*
David A. Trossman, CFA	*(410) 783-5330*

Water Treatment

Theodore M. Alexander, III	*(410) 783-3260*

FINANCIAL SERVICES

Banks

Mark Alpert, CFA	*(212) 237-2017*
Mitchell Shafran	*(212) 237-2093*
John A. Heffern	*(410) 783-3246*

Insurance

Ira H. Malis	*(410) 783-3267*
Ellen S. Barzilai	*(212) 237-2035*
Kevin R. O'Brien	*(410) 783-3278*
Mark A. Schoder	*(410) 783-3196*
John T. Bonner	*(410) 783-3105*

Real Estate

Robert A. Frank, CFA	*(410) 783-3249*
Catherine C. Creswell	*(410) 783-3250*
Samuel T. Hillers	*(410) 783-3168*
Barry P. Oxford	*(410) 783-3341*

Specialty Financial Services

Sy Jacobs	*(212) 237-2319*
Michael A. Corasaniti	*(212) 237-2009*
Mark J. Mackowiak	*(212) 237-2017*

HEALTH CARE

Health Services

Jonathan W. Osgood, CFA	*(617) 261-3622*
Eleanor H. Kerns	*(617) 261-3624*
Neal C. Bradsher, CFA	*(212) 237-2155*
Deborah J. Lawson	*(212) 237-2218*

Medical Technology, Separations Technology, Hospital Supplies

Jonathan W. Osgood, CFA	*(617) 261-3622*
John M. Putnam, CFA	*(617) 261-3737*
Cathy I. Becker, CFA	*(617) 261-3610*
Nancy A. Titcomb	*(617) 261-3695*

Pharmaceuticals & Biotechnology

Barbara A. Ryan	*(212) 237-2340*
Mara Goldstein	*(212) 237-2071*
David S. Webber	*(212) 237-2389*

MEDIA/COMMUNICATIONS

Communications Services

George V. Robertson, CFA	*(410) 783-3266*
Mark A. Roberts	*(410) 783-5340*
John H. Butler	*(410) 783-3261*
Dayna L. Crider	*(410) 783-3142*

Electronic Media

Andrew W. Marcus, CFA	*(212) 237-2081*
Eric R. Stewart	*(212) 237-2026*

New Media

Steven L. Eskenazi	*(212) 237-2311*
Janet A. Regalia	*(212) 237-2376*

Print Media

Karen R. Ficker	*(410) 783-3080*

TECHNOLOGY

Communications Technology

Nicholas P. Coutros	*(410) 783-3391*
James P. Wade	*(410) 783-5337*
Jennifer St. Germain	*(410) 783-3277*

Computer Services

Cato D. Carpenter	*(410) 783-3269*
Richard D. Park	*(410) 783-3441*

Computer Systems

Philip C. Rueppel	*(410) 783-3271*

Design Automation

John W. Marren	*(415) 544-2815*
Philip C. Rueppel	*(410) 783-3271*

Desktop Systems Software

Mary A. McCaffrey	*(212) 237-2441*
Karen B. Gage	*(212) 237-2039*

Enterprise Software

W. Christopher Mortenson	*(212) 237-2432*
Laurence T. Fong	*(212) 237-2357*
Alisa Rock	*(212) 237-2445*

Semiconductors & Enabling Components

Erik N. Jansen	*(415) 544-2854*
John W. Marren	*(415) 544-2815*

TRANSPORTATION

Trucking, Airlines, Transportation Services & Equipment

John G. Larkin, CFA	*(410) 783-3265*
William L. Wrightson, III	*(410) 783-3264*
H. Perry Boyle, Jr.	*(410) 783-3215*
E. Terrence Gardner	*(410) 783-3313*

INVESTMENT & ANALYTICAL SERVICES

Ivy T. Fradin, CFA	*(410) 783-3385*
Michael L. Ingraham, Ph.D.	*(410) 783-3276*
Susan C. Boyle	*(410) 783-3257*

SUPERVISORY ANALYSTS

Judith M. DeHoff	*(410) 783-3490*
Albert Nekimken, Ph.D.	*(410) 783-3275*
Cecilia M. Bryan	*(410) 783-3255*
Harriet Weiner	*(410) 783-3272*

RETAIL DIVISION RESEARCH GROUP

Francine S. Graillot	*(410) 783-5327*
Ashley M. Allen	*(410) 783-3251*
Doug M. Godine	*(410) 783-3141*
Donna M. Harner	*(410) 783-3252*

LICENSE STRUCTURE ISSUES THAT WILL MAKE PCS A VIABLE BUSINESS

Minimum of 30 MHz of contiguous bandwidth is needed

Competition for customers is the issue that will drive the deployment and further the success of PCS. If the FCC intends to create competition for cellular services then, at a minimum, new PCS entrants must be able to get contiguous blocks of spectrum in the auction in order to allow network efficiency similar to the incumbent cellular service providers that have 25 MHz in the 800-900 MHz band. It is our opinion that 30 MHz appears to be the minimum license size that will allow new PCS service providers to effectively compete with the incumbent cellular service providers. License sizes of less than 30 MHz are likely to permanently lock in premium investment returns for the cellular industry and inhibit the deployment of PCS networks by forcing PCS providers to use small cell sizes that restrict hand-off and that would make it difficult for PCS providers to ever offer high bandwidth multi-media services.

If the FCC intends to create competition for LEC services, then PCS service providers must be able to deploy the infrastructure at a per subscriber cost similar to wireline telephony. We believe licenses of 30MHz of contiguous bandwidth would allow for the most rapid deployment of PCS networks capable of offering mass-market, wireless, local-loop services.

Minimum of MTA-sized licenses are needed

New PCS entrants need to be able to rapidly offer seamless mobility at least in an area that encompasses a rational economic region--such as the proposed MTA license sizes. Smaller license sizes, such as the proposed BTAs, will require a period of aggregation that will be time-consuming and costly.

Structure the licenses to reduce the required time to market

Potential PCS licensees will tend to bid the highest for licenses and will have the easiest access to financing if the risks and uncertainties have been minimized. New PCS entrants will be required to develop business models based on certain competition with existing cellular service providers and emerging SMR networks. Both cellular and SMR services are moving toward becoming mass-market products. Consequently, the longer the delay in PCS's entry into the market, the lower the expected investment returns, which will in turn raise the cost of capital and reduce the amount bidders are willing to pay for the licenses. Factors that could cause a delay in the meaningful introduction of PCS are:

-- licenses of less than 30 MHz of bandwidth, which may require a substantial period of spectrum clearing and after-market aggregation before meaningful services can be offered; and,

-- licenses of small geographic size, which may require after-market aggregation to achieve regionwide metropolitan coverage.

THE CAPITAL MARKETS ARE WILLING TO FINANCE THE DEPLOYMENT OF PCS

If the licenses are properly structured, we believe that the capital markets will be willing to finance the license acquisition, the build-out and the operation of new PCS networks. Alex. Brown currently has a number of corporate clients involved with PCS as potential service and technology providers and we view the market for these products and services as very attractive. However, we believe PCS networks eventually will be competitive with cellular and local telephony, which tend to favor large, well-financed sophisticated communications network operators with access to large amounts of low-cost capital. The capital market financing needed to bid for PCS licenses is most likely only available to large, well-financed communications companies that have other sources of income from existing communications networks.

WAYS TO CREATE REALISTIC OPPORTUNITIES FOR DESIGNATED ENTITIES

In an environment where spectrum is abundant, as we believe it will be, the economics of PCS tend to favor large, well-financed communications providers accustomed to operating network investments that have commodity returns. Encouraging designated entities to partner with the large service providers by establishing a lengthy period before licenses could be transferred and by requiring that designated entities retain a significant equity stake in the license could result in more realistic opportunities for designated entities. There could also be an opportunity for designated entities to offer vertically integrated, value-added services over PCS networks without becoming PCS licensees.

Additional Information Available Upon Request

Ameritech Corporation, Bell Atlantic Corporation, BellSouth Corporation, GTE Corporation, NYNEX Corporation, Pacific Telesis Corporation, Southwestern Bell Corporation and U S WEST, Inc. stocks are optionable.

ALEX. BROWN & SONS
INCORPORATED

Research

Communications Services

Mark A. Roberts
(410) 783-5340

May 16, 1994

REGIONAL TELECOMMUNICATIONS COMPANIES OVERVIEW

Local Loop Competition Is The Issue And Timing Is Everything

Ticker	Analyst Stock Rating	Price 5/16/94	52-Week Price Range	FY End	Earnings Per Share 1993A	1994E	1995E	Cal. Yr. P/E 1994E	1995E	Indicated Div.	Yield
AIT	3	37 3/4	46-35	12	$2.69	$2.79	$3.02	13.5x	12.5x	$1.92	5.1%
BEL	3	50 3/4	69-49	12	$3.39	$3.56	$3.80	14.3x	13.4x	$2.76	5.4%
BLS	3	57 1/2	64-51	12	$3.45	$4.00	$4.40	14.4x	13.1x	$2.76	4.8%
BTY	2	56 5/8	75-54	3	$4.21	$3.78	$4.20	13.5x	NM	$2.54	4.5%
GTE	3	31 3/4	40-29	12	$2.21	$2.49	$2.65	12.8x	12.0x	$1.88	5.9%
NYN	3	36 3/8	49-33	12	$3.00	$3.00	NE	12.1x	NM	$2.36	6.5%
PAC	1	30 1/4	34-26	12	$2.59	$2.60	$2.70	11.6x	11.2x	$2.18	7.1%
SBC	3	39 1/2	47-37	12	$2.39	$2.62	$2.80	15.1x	14.1x	$1.58	4.0%
USW	2	39	51-38	12	$2.82	$3.06	$3.23	12.7x	12.1x	$2.14	5.5%

We believe there is a growing perception that the pace of competition toward the local loop is slowing down. Apparently, the collapse of both the proposed Bell Atlantic (BEL)/TCI merger and the joint venture between Southwestern Bell (SBC) and Cox Cable have caused many in the telecommunications industry to speculate that the prospect of competition and the aggressive introduction of new services into the local loop is receding toward the horizon. We disagree, and believe that the timing and extent of competition in the local loop is likely to depend much more on the timing and scope of major telecommunications legislation that is currently working its way through the U.S. Congress and the timing and scope of Personal Communications Services (PCS) Spectrum auctions expected to begin later this year. Based on a series of meetings with regulators and legislators, we believe that both of these events are likely (maybe a 60% possibility for telecom legislation) this year, which is faster than most investors seem to expect.

RECOMMENDATIONS

We continue to focus our attention on "strong buy"-rated Pacific Telesis (PAC) because:

- It may be the biggest beneficiary of PCS Spectrum auctions.
- Pacific Telesis has a very aggressive strategy to prepare for new competition by deploying new full-service networks within its region capable of carrying voice, video and PCS. For Telesis, this is a near-term necessity because it faces the prospect of faster competition than some of the other RHCs (see Tables 2 and 3).
- We believe that the regulatory environment in California over the next several years may favor Pacific Telesis's aggressive deployment plans in these areas.
- The valuation of Pacific Telesis appears very attractive given its 7.1% dividend yield versus the group average dividend yield of 5.4% (see Table 1).

We also continue to rate U S WEST "buy" because of its aggressive strategy to retain in-region market share by deploying new full-service voice, video and data networks in an effort to preempt inroads by potential competitors.

- U S WEST also benefits from a geographic region that we believe will be more difficult and expensive for competitors to overbuild.
- U S WEST is among the least exposed to potential CATV overbuilding (see Tables 2 and 3).
- U S WEST/Time Warner is the only large Telco/CATV venture to actually go forward, highlighting, we believe, U S WEST's leadership in building a national local access footprint.

Table 1

REGIONAL TELECOMMUNICATIONS VALUATION COMPARISON

		Share Price 5/16/94	Current Dividend	*Dividend Yield*	1994E EBITDA Multiple	*1994E EBITDA Margin*
Ameritech Corp.	AIT	$37.75	$1.92	*5.1%*	4.8	*40.3%*
Bell Atlantic Corp.	BEL	$50.75	$2.76	*5.4%*	5.6	*41.3%*
BellSouth Corp.	BLS	$57.50	$2.76	*4.8%*	5.1	*41.3%*
BT (British Telecomm.) (1)	BTY	$56.63	$2.55	*4.5%*	5.3	*38.3%*
GTE Corp.	GTE	$31.75	$1.88	*5.9%*	5.3	*41.0%*
NYNEX Corp.	NYN	$36.38	$2.36	*6.5%*	4.2	*39.1%*
Pacific Telesis	PAC	$30.25	$2.18	*7.2%*	4.5	*43.8%*
Southwestern Bell	SBC	$39.50	$1.58	*4.0%*	5.8	*42.0%*
U S WEST Inc.	USW	$39.00	$2.14	*5.5%*	5.2	*42.6%*

Note 1: Assumes UK:US exchange rate of: $1.50

Source: Alex. Brown & Sons

ALEX. BROWN & SONS
INCORPORATED

Research

Communications Services

Mark A. Roberts
(410) 783-5340

May 16, 1994

REGIONAL TELECOMMUNICATIONS INDUSTRY OVERVIEW

Update On The Timing Of PCS Spectrum Auctions

Ticker	Analyst Stock Rating	Price 5/16/94	52-Week Price Range	FY End	Earnings Per Share 1993A	1994E	1995E	Cal. Yr. P/E 1994E	1995E	Indicated Div.	Yield
AIT	3	37 3/4	46-35	12	$2.69	$2.79	$3.02	13.5x	12.5x	$1.92	5.1%
BEL	3	50 3/4	69-49	12	$3.39	$3.56	$3.80	14.3x	13.4x	$2.76	5.4%
BLS	3	57 1/2	64-51	12	$3.45	$4.00	$4.40	14.4x	13.1x	$2.76	4.8%
GTE	3	31 3/4	40-29	12	$2.21	$2.49	$2.65	12.8x	12.0x	$1.88	5.9%
NYN	3	36 3/8	49-33	12	$3.00	$3.00	NE	12.1x	NM	$2.36	6.5%
PAC	1	30 1/4	34-26	12	$2.59	$2.60	$2.70	11.6x	11.2x	$2.18	7.2%
SBC	3	39 1/2	47-37	12	$2.39	$2.62	$2.80	15.1x	14.1x	$1.58	4.0%
USW	2	39	51-38	12	$2.82	$3.06	$3.23	12.7x	12.1x	$2.14	5.5%

We believe there is growing pressure on the FCC to move the broadband Personal Communications Services (PCS) spectrum auctions forward as quickly as possible. The current thinking appears to be that the first round of auctions for 30 MHz Metropolitan Trading Area (MTA) licenses will begin late this year. We think this is counter to the conventional wisdom that the PCS spectrum auctions will be delayed into late 1995 or 1996.

To summarize our discussion over the last several weeks:

- we expect the two 30 MHz MTA license blocks to remain largely intact;
- a reconsideration of the 20 MHz and 10 MHz license blocks, to possibly create a third 30 MHz MTA license block is likely; and
- there have developed strongly held views by key decision makers at the FCC that any possible changes should not be allowed to delay the start of auctions late this year.

PCS spectrum auctions could significantly raise the investment risk profile of both Local Exchange Carriers (LECs) and cellular service providers. Of the Regional Telcos, **Pacific Telesis** (NYSE: PAC), may be a big beneficiary of the PCS auctions, which could lift the share price if they win a 30 MHz license everywhere in California. **Southwestern Bell** (NYSE: SBC) appears to be the most exposed to a general decline in cellular valuations.

FCC PCS TASK FORCE HEARING

The following is a presentation that was made by us at the request of the FCC outlining our thesis on PCS.

CAPITAL MARKET FINANCING OF PERSONAL COMMUNICATIONS SERVICES

A Presentation to the Federal Communications Commission on April 11, 1994

Presented by: Mark A. Roberts, CPA
(410) 783-5340

Submitted by: George V. Robertson, CFA
(410) 783-3266
Mark A. Roberts, CPA
(410) 783-5340

OPENING REMARKS

We would like to thank members of the Commission and staff for the opportunity to present our views on Personal Communications Services. We have paid particular attention to those issues that we believe will affect the ability of PCS licensees to finance the deployment of PCS networks.

INTRODUCTION

We believe that Personal Communications Services (PCS) will be rapidly deployed at price points likely to stimulate significant demand and foster rapid growth if licensees can acquire large blocks of contiguous spectrum covering large, economically significant geographic areas. Competition will likely be the driving force behind the deployment of PCS and we see significant linkage between the rapid deployment of PCS and regulatory efforts to introduce competition into other forms of voice, video and data communications. Also, the ability of PCS to compete with cellular is critical because full cellular mobility is the first visible market for new PCS entrants. The nature of PCS will tend to favor large communications service providers because:

-- PCS networks are going to be very capital-intensive, fixed-cost networks requiring a heavy investment well in advance of any revenues and investment returns. Before they can offer meaningful service, PCS networks will need to have initial coverage areas, service options and quality levels as least as good as today's current cellular networks and they will have to add subscribers while cellular service providers and Specialized Mobile Radio (SMR) operators are aggressively trying to preempt competition; and,

-- PCS makes the most economic sense and has the highest value to the licensee when it is leveraged off of an existing wireline backbone built for some other purpose such as: a telephony local loop, Competitive Access Provider loop, CATV network or an Interexchange Carrier (IXC) Point-of-Presence (POP).

Table 2

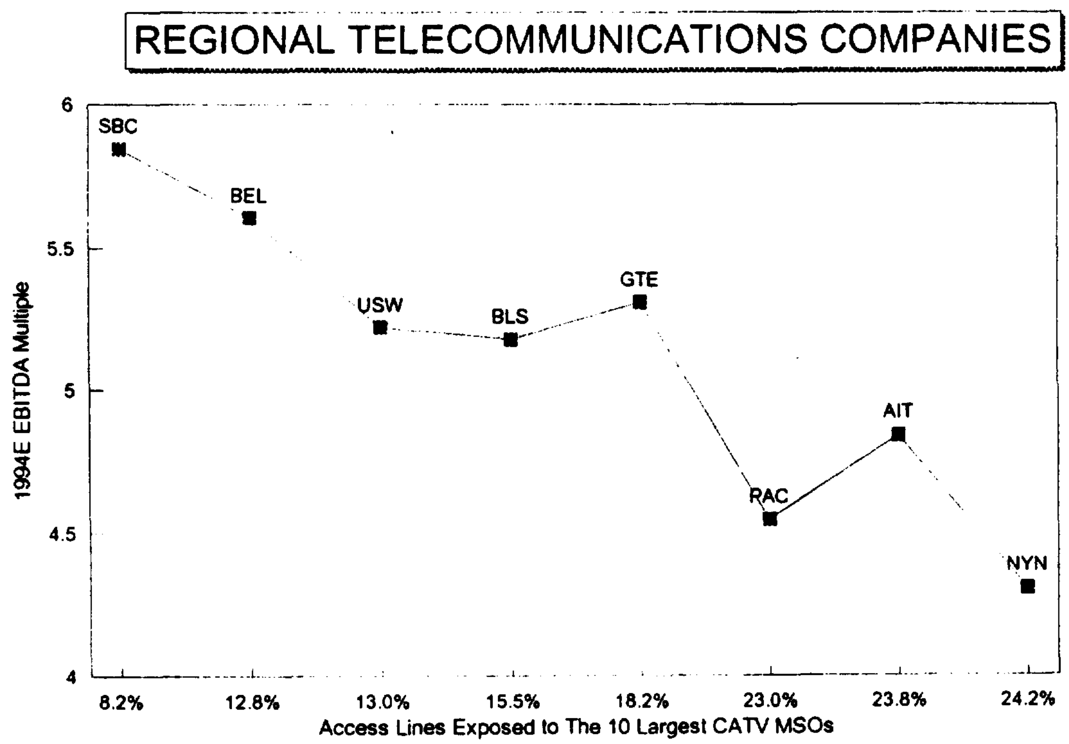
REGIONAL TELECOMMUNICATIONS COMPANIES

Access Lines Exposed To The 10 Largest CATV MSOs

		1994E EBITDA Mult.	% Acc. Line Exposure
Southwestern Bell	SBC	5.8	8.2%
Bell Atlantic Corp.	BEL	5.6	12.8%
U S WEST Inc.	USW	5.2	13.0%
BellSouth Corp.	BLS	5.2	15.5%
GTE Corp.	GTE	5.3	18.2%
Pacific Telesis	PAC	4.5	23.0%
Ameritech Corp.	AIT	4.8	23.8%
NYNEX Corp.	NYN	4.3	24.2%

Source: Kagen & Associates

Table 3



Source: Alex. Brown & Sons; Kagen & Associates

AVOIDING A FALSE SENSE OF SECURITY

Correctly or not, the Federal Communications Commission has received much of the blame for the collapse of the Bell Atlantic/TCI merger as well as the collapse of the joint venture between Southwestern Bell and Cox Cable. And as a result, the perception (at least in the press) appears to be that the aggressive development of what has come to be known as the "information superhighway" has dramatically slowed down and that the visibility of competition for local telecommunications is receding toward the horizon. We believe that this could not be further from the truth. Local loop competition is likely to be driven much more by the timing of the broadband PCS Spectrum auctions and who the winners are, and by extensive telecommunications reform legislation that is currently working its way through the Congress--specifically, House Bills 3636, 3626 and Senate Bill 1822. We believe the House Bills would foster the most competitive environment and appear to be favored by the Administration.

We see significant linkage between telecommunications reform legislation and the PCS auctions that could quickly allow cable companies (CATV), competitive access providers (CAPs), long-distance carriers (IXCs) and others to begin offering local telephony services while allowing local telecommunications companies to begin offering video, wireless mobility and long-distance services. Carriers that continue to aggressively prepare for competition are likely to be better positioned than those that have adopted a wait-and-see strategy.

- Our experience with other industries that have been deregulated is that carriers focused on preempting in-region competition will change their corporate culture faster than carriers that are out-of-region or diversification focused.

- We believe 30-40% of the traditional telephony business is at risk over time and it is unlikely that carriers can invest enough out-of-region to replace this amount of in-region share loss.

THINKING LIKE A COMPETITOR

We continue to believe that it is not necessary for a regional telecommunications company to adopt an aggressive out-of-region investment strategy to be successful. In fact, just the opposite--a focus on in-region customer control and building density by adding new products and services on existing in-region networks could result in long term higher incremental returns on investment and better share price performance. In an environment in which fixed costs are high for all potential competitors in the local loop: cellular service providers, cable TV companies and local wireline telephony companies, we believe the correct strategy is to preempt competition through the rapid buildout of new networks capable of offering new services and existing services in price points likely to cause potential competitors to invest elsewhere. This appears to be the strategy of both Pacific Telesis and Ameritech (AIT), which may be among the most exposed to new competition (see Table 3). However, U S WEST has adopted this strategy even though it appears to be among the least exposed.

FOCUSING ON LONG-TERM SHARE PRICE PERFORMANCE

In the long term, the safety of the dividend is likely to be critical to future share price performance. We believe that those carriers that focus on aggressively protecting in-region market share are likely to have the best safety of dividend payments. In fact, even in an environment in which 40% of traditional market share is lost over time, we believe that the safety of the dividends could be maintained if regional telecommunications companies have aggressively upgraded their networks, and introduced new interactive video and wireless mobility products and services.

THE RISK PROFILE OF THE REGIONAL TELECOMMUNICATIONS COMPANIES IS LIKELY TO RISE

As competition comes to the local loop over the next several years, we expect most of the regional telecommunications companies to underperform the market. However, within the group there may be wider divergence of share price performance than there has been at any time since 1984. For investors looking for a higher-risk/reward profile we rate Pacific Telesis "strong buy." For investors interested in the best long-term performance relative to the group, we rate U S WEST "buy."

EMPHASIS SHOULD BE ON REGULATORY AND LEGISLATIVE EVENTS FOR TIMING

PCS Spectrum Auctions Are Likely To Begin Late This Year

The Federal Communications Commission recently held a series of hearings to determine whether or not there should be a major reconsideration of the personal communications services order that was issued last September. Some have speculated that there will be a major reconsideration that will postpone any sort of broadband PCS Spectrum auctions for a year or more and that there is a possibility that the reconsideration might result in a much more favorable outcome for the incumbent cellular service providers; however, we doubt that this is the case. We continue to believe that broadband PCS Spectrum auctions will begin later this year and that the biggest beneficiary among the regional telecommunications companies would be Pacific Telesis **if** it wins the large 30 megahertz MTA licenses throughout its California region.

Major Telecommunications Legislation Likely This Year

Many investors will be surprised if major telecommunications reform legislation passes this year. However, we continue to believe it is better than a 50-50 possibility that there is enough bipartisan support to pass a bill this year and the administration may encourage rapid passage if the Bill resembles the two House Bills H3636 and H3626.

STRATEGIES THAT WE THINK WILL BE SUCCESSFUL

We continue to believe that the regional telecommunications companies that are likely to perform best over time and where the dividend is likely to be the safest are those that are aggressively planning to preempt any competitive inroads into their geographic home regions. The reason we feel so strongly about this is because most communications networks continue to be very high fixed cost with very low variable cost. Consequently, once competitive networks are built there is a strong incentive to load those networks with traffic using incentive pricing. Secondly, in an environment where bandwidth is rapidly increasing and network capacity is a commodity, control of the customer is critically important. Control of the customer is critical because it allows the marketing of vertically integrated packages of differentiated services that may positively impact on cash flow margins. Consequently, we would focus on those companies that have an aggressive network investment plan and an in-region market share retention focus such as:

- carriers that are rapidly planning to upgrade their in-region networks to provide high bandwidth business and residential voice, video and data services;
- those carriers that have a well-defined PCS strategy to both complement and defend their cellular and wireline network investments; and
- those carriers that are aggressively trying to take costs out of their business.

Additional Information Available Upon Request

Within the past three years, Alex. Brown & Sons Incorporated has managed or comanaged the most recent public offering of British Telecommunications, plc.

Ameritech Corporation, Bell Atlantic Corporation, BellSouth Corporation, British Telecommunications, plc, GTE Corporation, NYNEX Corporation, Pacific Telesis Corporation, Southwestern Bell Corporation and U S WEST, Inc. stocks are optionable.

Alex. Brown & Sons
Incorporated

DIRECTOR OF RESEARCH

Denis J. Callaghan	(410) 783-3195

CONSUMER

Growth Retailers

Christopher E. Vroom, CFA	(410) 783-3146
Barbara E. Miller	(410) 783-3292
Anita A. Wager	(410) 783-3301
Maria L. Medaris	(410) 783-5331
Linda D. Farquhar	(410) 783-3243
Christopher A. Feiss	(410) 783-3259

Restaurants

Steven A. Rockwell, CFA	(410) 783-3144
Camille E. Humphries	(410) 783-3145

ENVIRONMENTAL

Solid & Hazardous Waste Management, Air Pollution, Engineering & Industrial Services, Water Treatment

Hugh F. Holman	(410) 783-3254
D. Cotton Swindell	(410) 783-3037
David A. Trossman, CFA	(410) 783-5330
Jean M. Kennedy	(410) 783-3260

FINANCIAL SERVICES

Banks

Mark Alpert, CFA	(212) 237-2017
Mitchell C. Shafran	(212) 237-2093
John A. Heffern	(410) 783-3246
Suzanne S. Gaudreau	(410) 783-5328

Insurance

Ira H. Malis	(410) 783-3267
Ellen S. Barzilai	(212) 237-2035
Kevin R. O'Brien	(410) 783-3278
Mark A. Schoder	(410) 783-3196
John T. Bonner	(410) 783-3105

Real Estate

Robert A. Frank, CFA	(410) 783-3249
Catherine C. Creswell, CFA	(410) 783-3250
Barry C. Curtis	(410) 783-3188
Samuel T. Hillers	(410) 783-3168
Barry P. Oxford	(410) 783-3341

Specialty Financial Services

Sy Jacobs	(212) 237-2319
Michael A. Corasaniti	(212) 237-2009
Mark J. Mackowiak	(212) 237-2208

HEALTH CARE

Health Services & Providers

Eleanor H. Kerns	(617) 261-3624
Nancy T. Ockers	(617) 261-3695
Deborah J. Lawson	(212) 237-2218

Medical Technology, Separations Technology, Hospital Supplies

Jonathan W. Osgood, CFA	(617) 261-3622
John M. Putnam, CFA	(617) 261-3737
Cathy I. Becker, CFA	(617) 261-3610

Pharmaceuticals & Biotechnology

Barbara A. Ryan	(212) 237-2340
Mara Goldstein	(212) 237-2071
David S. Webber	(212) 237-2389
Matthew N. Murray, Ph.D.	(212) 237-2245
Kevin C. Tang	(212) 237-2293

MEDIA/COMMUNICATIONS

Communications Services

George V. Robertson, CFA	(410) 783-3266
Mark A. Roberts	(410) 783-5340
John H. Butler	(410) 783-3261
Dayna L. Crider	(410) 783-3142

Broadcast & Entertainment

Andrew W. Marcus, CFA	(212) 237-2081
Eric R. Stewart	(212) 237-2026

New Media

Steven L. Eskenazi	(212) 237-2311
Janet A. Regalia	(212) 237-2376
Tricia S. Chan	(415) 477-4202

Publishing

Peter P. Appert, CFA	(212) 237-2352
Pamela Kobin	(212) 237-2367

TECHNOLOGY

Communications Technology

Nicholas P. Coutros	(410) 783-3391
James P. Wade	(410) 783-5337
Jennifer St. Germain	(410) 783-3277

Computer Services

Cato D. Carpenter	(410) 783-3269
Richard D. Park	(410) 783-3441

Computer Systems

Philip C. Rueppel	(415) 477-4264
Shaun G. Andrikopoulos	(415) 477-4234

Design Automation

John W. Marren	(415) 544-2815
Erach D. Desai	(415) 544-2890
Philip C. Rueppel	(415) 477-4264
Shaun G. Andrikopoulos	(415) 477-4234

Desktop Systems Software

Mary A. McCaffrey	(212) 237-2441
Karen B. Gage	(212) 237-2039

Enterprise Software

W. Christopher Mortenson	(212) 237-2432
Alisa Rock	(212) 237-2445

Semiconductors & Enabling Components

Erik N. Jansen	(415) 544-2854
John W. Marren	(415) 544-2815
Erach D. Desai	(415) 544-2890

TRANSPORTATION

Trucking, Airlines, Transportation Services & Equipment

John G. Larkin, CFA	(410) 783-3265
William L. Wrightson, III	(410) 783-3264
Anthony P. Gallo, CFA	(410) 783-3275
H. Perry Boyle, Jr.	(410) 783-3215
E. Terrence Gardner, Jr.	(410) 783-3313

INVESTMENT & ANALYTICAL SERVICES

Ivy T. Fradin, CFA	(410) 783-3385
Michael L. Ingraham, Ph.D.	(410) 783-3276
Susan C. Boyle	(410) 783-3257

SUPERVISORY ANALYSTS

Judith M. DeHoff	(410) 783-3490
Pauline A. Codd	(410) 783-3396
Harriet Weiner	(410) 783-3272

RETAIL DIVISION RESEARCH GROUP

Francine S. Graillot	(410) 783-5327
Ashley M. Allen	(410) 783-3251
Doug M. Godine	(410) 783-3141
Miriam L. Levinson	(410) 783-3252