EXHIBIT 1

The State of the Telecommunications Industry from March 31st, 2002 with Emphasis on the Wireless Voice Industry

October 11th, 2002

Prepared For
George D. Crowley, Jr.
Chairman and Chief Executive Officer of
Salmon PCS LLC

BIA Financial network

TABLE OF CONTENTS

Executive Summary

BIA Financial Network, Inc. (BIAfn)[1] has been asked to examine and comment on the state of the telecommunications industry during the period of March 31, 2002 to the present (October 9, 2002) with particular emphasis on the wireless industry segment. The analysis was undertaken in view of the FCC's March 26, 2002 decision to refund approximately $2.8 billion to the Auction 35 bidders who have not yet received their licenses, but to retain an amount equal to 3% of the net winning bids for these licenses and to hold applicants liable for their entire bid amounts if and when the FCC is able to deliver the spectrum that still is tied up in litigation.

This paper is complementary to J. Gregory Sidak's August 2002 research study entitled "The Economic Benefit of Permitting Winning Bidders to Opt out of Auction 35." In that paper Dr. Sidak concludes that it would be in the best interests of the industry and the economy if the FCC allows the bidders to opt out of Auction 35 and to receive a full refund of their bid deposits. BIAfn supports that view based on our examination of market conditions both before and after the FCC's March 2002 decision. Our conclusion is based on the fact that since April 1st 2002 the telecommunications sector has reached unprecedented lows and the cautious optimism of the spring this year has been replaced by an increasingly negative outlook which convinces us that the industry will not turn around in the short term. For this reason we believe that it is imperative that the FCC grant the companies in the wireless sector some measure of relief by fully refunding their Auction 35 deposits upon request and relieving them of the contingent liability associated with the ungranted Auction 35 applications. The evidence leading to our conclusion is briefly summarized in the following paragraphs. Full details and illustrations are contained in the body of the report.

Capital Markets Analysis of the Telecommunications Market

We examined three major areas in the telecommunications capital market: Market Capitalization, Credit Ratings/Debt Issuance, and Telecommunications Stock Market Indices. In addition, we looked at the

[1] BIAfn is a merchant banking, investment and consulting firm specializing in media, telecommunications and related industries. For more than 19 years, BIAfn has assisted clients in increasing shareholder value by providing a wide range of services related to acquisitions, mergers, divestitures, operations, integration, growth, changes in strategic direction and expert witness support. BIAfn also assists companies with workout and bankruptcy strategies, and with raising capital for acquisition and growth. BIAfn has worked with major broadcasters, many cellular, PCS, SMR, LMDS and MMDS carriers and with CLECs, ILECs and RBOCs. BIAfn has extensive experience in the valuation of FCC licenses ranging from broadcast, PCS, cellular, SMR, MMDS, and ITFS as well as ATC satellite spectrum. BIAfn also works, in conjunction with owners and operators, with leading financial institutions and law firms that provide services to the communications sector.

pace of merger and acquisition activity, noted the publicity given to poor telecommunications market conditions in the press, and checked employment statistics.

With regard to market capitalization, we observed that the telecommunications industry lost a total of $72 billion in value between October 2001 and March 30, 2002. Since March 30, however, the industry has lost a further $366.8 billion. These losses are staggering. In the telecommunications industry as a whole, investors have lost over $438.8 billion since October 2001, and no bottom is in sight, according to at least one analyst.

In the area of credit ratings/debt issuance, we noted that for a sample of 15 wireless companies, wireline companies, and equipment manufacturers, Moody's rates only two with "stable" outlooks, while six are flagged for possible additional downgrades, and the outlook for seven of the companies is outright negative. Moody's changed the outlook for the US Wireless industry to Negative on June 21, 2002, and placed the majority of non-investment grade US Wireless Operators on review for possible downgrade. This indicates that raising capital in the future for these companies may be particularly difficult.

To estimate the opinion of stock market investors about the telecommunications industry, we turned to the Nasdaq Telecommunications Index, which showed an astonishing 93% drop between March 10, 2000 and August 5, 2002. The index has not attained its April 1, 2002 value of 176.03 in the six months since that date. Instead, the index lost nearly 52% of its value between April 1 and August 5, and has remained in a relatively tight price range since that time. Stock price changes in the wireless sector mirrored those in the overall telecommunications industry. Although losses in the broad stock market, as measured by the S&P 500 index, have been substantial, they have been nowhere near as severe as those in the telecommunications industry.

The pace of mergers and acquisitions (M&A) in an industry is a general indicator of the health of the industry. When conditions are favorable, companies become expansion-minded, and the number of M&A announcements increases. When conditions are poor, however, companies go into defensive modes, and the number of M&A announcements falls. BIA maintains a database of transactions in the telecommunications industry, based on M&A announcements published in various trade magazines and newsletters. A check of our database for this report revealed that the number of telecommunications M&A transactions observed so far in 2002 is 89% lower than the number observed in 1999. It is clear that in the current market climate, telecommunications companies simply do not have, and cannot obtain, the necessary capital to undertake expansion programs.

Our M&A database also revealed that not only has M&A activity stalled, but prices being paid are lower as well. To use the wireless industry segment as an example, between 2000 and 2002 cellular prices per pop dropped 43%, cellular prices per sub dropped 48%, and PCS prices per pop dropped 90%. This can only be described as a "fire sale."

In 2001 the telecommunications industry cut almost 318,000 jobs and until the more recent months, the pace had not slowed in 2002. The first six months of 2002 saw a 27% increase from 2001 in the number of jobs cut with 165,840 in the first two quarters of 2002. The layoffs through June 2002 represent 23% of the national total for all sectors.

Analysis of Wireless Companies' Performance

In this section, we looked at the wireless companies' financial and operating data to assess the current state of the wireless industry as well as the future outlook. The conditions we found were generally unfavorable: Slowing subscriber growth, intensifying competition and price wars, and heavy debt loads are pressuring wireless carriers.

Wireless carriers are experiencing a significant reduction in net subscriber growth. While the slowing growth ranges from minus 84% to minus 2%, it is clear that the carriers will face more difficulty in acquiring new customers while sustaining the existing customers. In the face of slower growth, most carriers have no option but to participate in the price wars in order to sustain a share of the industry.

Wireless companies have been struggling from bigger losses in the second quarter this year than last year (with an exception of Nextel). While some of the losses are attributed to more expensive customer acquisition costs and slowing revenues, major parts of the deteriorating net margins are the result of higher interest expenses brought on by the heavy debt loads of the carriers. This suggests that carriers need to put more effort into improving their balance sheets and to achieve free cash flows sooner. The capital markets will not inject capital into the wireless carriers unless they can promise a much higher return on investments.

We looked at AT&T Wireless' EBITDA and net debt to put its potential Auction 35 liability in perspective. The contingent liability could increase the debt burden by over 40% for AT&T Wireless and net debt could stand at three times EBITDA as of the second quarter, 2002. The removal of this contingent liability would substantially benefit the company in terms of liquidity, financial stability and competency in the marketplace.

Bankruptcies in the Telecommunications Sector

Another indicator of the state of the telecommunications industry is the number of bankruptcies occurring. We identified a total of 36 bankruptcies among publicly traded telecommunications companies in 2001 and 26 bankruptcies in the first seven months of 2002. During the first seven months of 2001 there were 22 bankruptcies, which indicates the rate of bankruptcies has increased since last year.

An analysis of the amount of assets involved in chapter 11 reorganizations provides another account of how the continuing problems of telecommunications industry have intensified since March 2002, and it also provides a strong indication that the recovery is not in sight in the next six to twelve months. On average, the asset size of a publicly traded company involved in bankruptcies in 2001 was under $1 billion. In contrast, in 2002 the average size of bankruptcies was nearly $9 billion, and in the months of April through July 2002 it was over $32 billion. Of the fifteen largest bankruptcies since January 2001, eleven occurred in 2002, and ten of them occurred after March 31st, 2002. The total amount of assets involved in these fifteen bankruptcies is over $236 billion and the total amount of liabilities that will be partially or fully defaulted on is over $151 billion.

The trend toward larger telecommunications companies defaulting indicates that the larger telecommunications companies have better access to capital, and have been able to fend off bankruptcy longer than small companies. However, the slump in the telecommunications sector now pressures even the large companies, who are also now affected by increasing debt levels, overcapacity, declining revenue, increased competition, price wars, and limited access to capital. As the previous sections have shown, continuously falling market caps, poor credit ratings, increased debt burdens, and increasing competition for customers are also affecting large companies.

It can be concluded from our analysis that competitive pressure, continued recession in the telecommunications sector, heavy debt levels and the lack of investor confidence in the industry only paints a bleak picture for the wireless industry in the short term. Consolidation and improved debt levels will be essential for the industry to become healthy. The focus needs to be on fixing balance sheets, getting debt levels under control so that capital will be more readily available. We believe that the FCC therefore would be able to help the wireless industry significantly by approving the opt out of Auction 35, so that the companies can focus on growth and turning the industry around.

I. Introduction

On September 12, 2002, the FCC released a public notice in which it asked for comments on the disposition of down payments and pending applications from Auction 35. This Notice seeks comments on applications for the spectrum formerly licensed to Nextwave Personal Communications, Inc., Nextwave Power Partners, Inc. and Urban Comm. The Commission has refunded approximately $2.8 billion to the Auction 35 bidders who have not yet received their licenses, but has retained an amount equaling 3% of the net winning bids for these licenses. The total retained at the FCC is $498,548,061. Of even greater significance, in granting the partial refund, the FCC indicated that it expected applicants to pay the full amount of their Auction 35 bids if and when the FCC was in a position to grant the licenses. This means the bidders are subject in the aggregate to a contingent liability in excess of $16 billion.

This research paper should be viewed as complimentary to the paper written by J. Gregory Sidak. His research study entitled "The Economic Benefit of Permitting Winning Bidders to Opt out of Auction 35" was dated on August 21, 2002. BIAfn has read this report and largely concurs with the data presented as it mirrors data that BIAfn has acquired. Therefore, in order not to merely duplicate this paper we have focused on data from the six months following the decision for a partial refund made by the FCC. The FCC granted the partial refund on March 26 2002[2]. This partial refund decision was made by the FCC based on the current market conditions and the information available at that time. However, since April 1st 2002 the telecommunications sector has reached unprecedented lows and the cautious optimism of the spring this year has been replaced by an increasingly negative outlook on an industry that will not turn around in the short term. It is expected to be at least 12 to 18 months before the industry recovers. This paper will illustrate that the outlook for wireless carriers has further sagged by analyzing the capital markets of the telecommunications industry; wireless companies performances, and bankruptcies in the industry since Auction 35. This paper also analyses several indicators that were not mentioned in Dr. Sidak's research, such as M&A activity and bankruptcies of publicly traded companies. One can only conclude after examining this evidence that the wireless industry would be well served by the Commission refunding the remaining deposits on ungranted licenses from Auction 35 and allowing applicants to opt out of particular bids if they so choose, thereby eliminating the contingent liability that exists. This conclusion is justified based upon material adverse changes in economic conditions that have occurred since the FCC released its *Partial Refund Order* in March of 2002.

[2] Source: "*Partial Refund Order*", Order, FCC 02-99 (released March 27th 2002)

II. Capital Markets Analysis of the Telecommunications Market

a. Market Capitalization

The overall health of an industry can be gauged by looking at market capitalization (or "market cap" as it is often called) because it represents the total value of the outstanding shares of common stock of the companies in the industry. The amount of market capitalization is, therefore, a direct indicator of the amount of value, or wealth, present in an industry at any given time. If the market capitalization in an industry declines, the amount of the decline represents the amount of wealth lost by investors in the industry.

In order to measure the overall health of the both the telecommunications industry as a whole and the wireless telecommunications industry, we created an industry index by summing the market capitalization of seven wireless companies, 13 wireline companies and 15 equipment manufacturers. We created a wireless index using the 7 wireless companies. The table below lists the companies used to create the indices.

List of Telecommunications Companies

		Market Capitalization (in $ millions)		
Wireless:		**October 4, 2001**	**April 1, 2002**	**October 3, 2002**
Alltel Corporation	AT	18,391.20	16,857.82	17,834.19
AT&T Wireless	AWE	40,921.00	24,254.50	11,463.30
Boston Communications Grp	BCGI	185.71	146.38	180.75
Nextel	NXTL	7,312.43	4,390.65	7,485.95
Price Communications Corp	PR	946.48	971.73	643.43
Sprint PCS Group	PCS	28,564.05	10,568.20	2,332.98
United States Cellular	USM	4,068.23	3,531.82	2,432.33
Total Wireless		***100,389.09***	***60,721.10***	***42,372.92***
Wireline:				
Adelphia	ADLAE	4,814.06	2,777.50	148.19
AT&T Corporation	T	75,421.50	60,791.50	43,890.00
Bellsouth	BLS	73,696.70	66,478.50	39,270.00
Centennial Communications	CTL	856.58	329.82	307.83
Commonwealth Tele. Enterp	CTCO	924.49	899.35	867.15
Hector Communications	HCT	49.14	50.54	31.59
Hickory Tech Corporation	HTCO	226.38	227.36	181.02
Qwest Communications Intl.	Q	27,804.00	13,440.00	3,931.20
SBC Communications	SBC	148,051.80	120,146.40	72,594.00
Sprint FON Group	FON	21,538.00	14,401.09	9,202.60

SureWest Communications	SURW	776.72	823.00	425.01
Wireline cont'd:				
Verizon	VZ	145,099.50	123,150.30	89,817.00
Warwick Valley Telephone	WWVY	92.56	101.18	96.28
Total Wireline		***499,351.42***	***403,616.54***	***260,761.87***
Equipment Manufacturers:				
Alcatel	ALA	13,450.00	18,100.00	3,200.00
Ciena	CIEN	3,711.02	3,079.92	1,083.32
Cisco Systems	CSCO	105,121.80	127,720.80	71,514.90
Corvis	CORV	736.59	543.18	209.87
Ericsson	ERICY	28,567.80	33,409.80	3,792.90
Juniper Networks	JNPR	4,913.88	4,899.07	1,747.82
Lucent Technologies	LU	17,355.80	13,445.60	2,572.50
Motorola	MOT	36,133.00	33,258.00	24,058.00
Nokia	NOK	79,467.50	99,465.00	65,787.50
Nortel Networks	NT	17,752.20	14,265.73	1,920.00
Redback Networks	RBAK	258.71	614.88	67.34
Siemans	SI	36,876.23	59,650.10	29,905.18
Sycamore Networks	SCMR	1,119.43	1,089.33	629.51
Tellium	TELM	580.41	271.61	41.70
Tellabs	TLAB	4,698.19	4,290.90	1,958.26
Total Equipment Manufacturers		***350,742.56***	***414,103.92***	***208,488.78***
TOTAL TELECOM INDUSTRY		***950,483.06***	***878,441.57***	***511,623.58***

As shown in the table above, the telecommunications industry lost a total of $72 billion in market capitalization between October 2001 and March 30, 2002. Since March 30, the industry has lost $366.8 billion in market capitalization. The huge drop in capitalization post March 30th, is mainly from the Equipment manufacturers and the wireline companies, which lost $205.6 billion and $142.9 billion, respectively.

The chart below illustrates the daily changes in market capitalization for the companies above over the course of the past year.

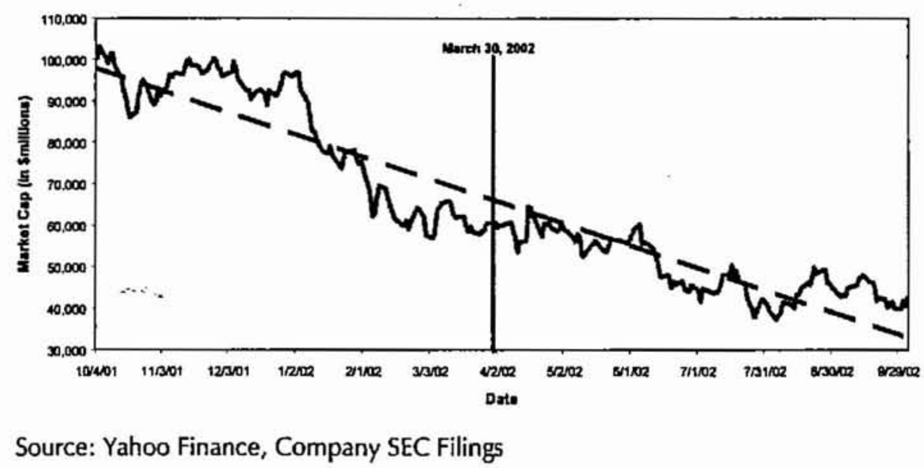
Market Capitalization in the Telecom Industry

As shown in the chart, market capitalization in the telecommunications industry has declined 54.9% over the past year, from a high of $1,078 billion on January 3, 2002 to a low of $486 billion on September 30, 2002. In the period since March 30, 2002, market capitalization declined 41% from its high of $878 billion on April 1, 2002. The market capitalization has not risen above that dollar amount since that date.

Wireless Market Capitalization

The chart below illustrates the daily changes market capitalization for the listed wireless companies over the course of the past year.

Market Capitalization of the Wireless Industry



Source: Yahoo Finance, Company SEC Filings

Note that the decline in market capitalization in the wireless industry over the last year has been much steeper than that of the entire telecommunications industry as a whole. The total decline in market capitalization for these wireless companies was 63.8%, from a high of $103.2 billion on October 5, 2001, to a low of $37.4 billion on August 5, 2002. Market capitalization declined a further 44.9% between October 4, 2001 and March 30, 2002. Similar losses occurred after that time as shown above. Wireless market capitalization dropped 42.1% from a high of $64.5 billion on April 16 to a low of $37.4 on August 5th.

These losses are staggering. In the telecommunications industry as a whole, investors have lost over $438.8 billion since October 2001. "No bottom in sight," is how Nikos Theodosopoulos, an analyst at UBS Warburg, puts it. He notes that, historically, the telecommunications sector tends to recover six months later than the economy as a whole[3]. However, nobody is predicting the economy to turn around any time soon. As evidenced by the data above, the downturn has affected almost every aspect of the telecommunications industry and the interlinking of the telecommunications sectors only compounds the issue of recovery. As a result, the sector is not likely to see an upswing soon.

b. Credit Ratings/Debt Issuance

The changes in telecommunications companies' bond ratings over time are an important indictor of the state of the industry, particularly with respect to the degree of riskiness present. The Table below contains Moody's senior unsecured bond ratings for a selection of wireless companies, wireline companies, and equipment manufacturers for the periods of January 2001 through March 31, 2002, and from that date forward to October 7, 2002. We believe this Table to be illustrative of the general situation prevailing in telecommunications during the period.

[3] Source: The Economist (print edition), May 2nd, 2002

Telecommunications Company Bond Ratings (Senior Unsecured Debt)

Wireless	Rating on Jan 29, 2001	Rating on Mar 30, 2002	Rating on Oct 7, 2002	Change since Mar 30, 2002	Outlook (current)
Alltel Corp.	A2	A2	A2		Stable
AT&T Wireless	NR	NR	Baa2		Negative
Nextel Comm.	B1	B1	B3	Lowered from B1	Negative
United States Cellular	A3	A3	A3		Negative
Wireline	**Rating on Jan 29, 2001**	**Rating on Mar 31, 2002**	**Rating on Oct 7, 2002**	**Change since Mar 30, 2002**	**Outlook (current)**
Adelphia Comm.	B2	Caa1	Caa2	Lowered from Caa1	Negative
AT&T Corp.	A2	A3	Baa2	Lowered from A3	Negative
Bellsouth Corp.	NR	Aa3	Aa3		Review for Possible Downgrade
Centurytel, Inc.	Baa2	Baa2	Baa2		Stable
Qwest Comm.	Baa1	Baa3	Caa1	Lowered from Baa3	Review for Possible Downgrade
SBC Comm.	Aa3	Aa3	Aa3		Review for Possible Downgrade
Sprint Corp.	Baa1	Baa2	Baa3	Lowered from Baa2	Negative
Equipment Manufacturers	**Rating on Jan 29, 2001**	**Rating on Mar 31, 2002**	**Rating on Oct 7, 2002**	**Change since Mar 30, 2002**	**Outlook (current)**
Alcatel	A1	Baa2	Ba1	Lowered from Baa2	Review for Possible Downgrade
Ciena	NR	Ba3	Ba3		Review for Possible Downgrade
Lucent Tech.	Baa1	B2	B2		Review for Possible Downgrade
Motorola	A1	A3	Baa2	Lowered from A3	Negative

Source: Moody's - Oct 7, 2002

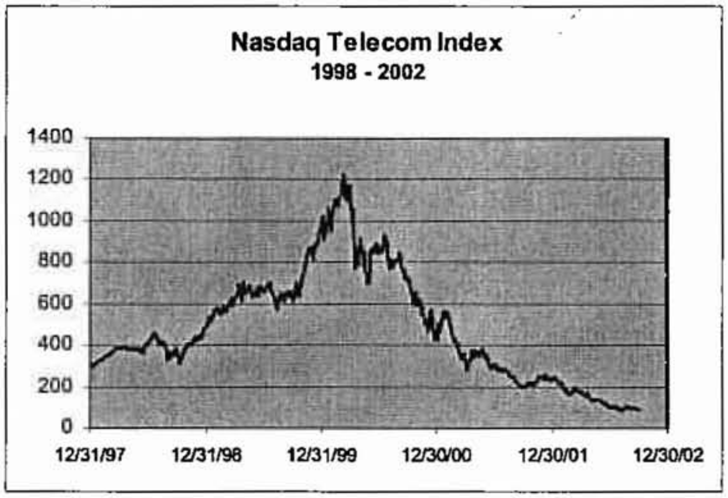
Observe in the Table that no rating upgrades were awarded to any company throughout the period. On the contrary, seven downgrades were issued between January 29, 2001 and March 31, 2002 (to nearly half the companies in the sample), and seven more downgrades were issued between March 30, 2002 and October 7, 2002. Qwest was particularly hard hit, its rating being lowered three steps from Baa1 to Caa1.

The Outlook column in the Table is particularly disturbing. Only two companies out of 15 have "stable" outlooks, while six are flagged for possible additional downgrades, and the outlook for seven of the companies is outright negative. In fact, Moody's changed the outlook for the US Wireless industry to Negative on June 21, 2002, and placed the majority of non-investment grade US Wireless Operators on review for possible downgrade.[4] This indicates that raising capital in the future for these companies may be particularly difficult.

[4] Source: www.Moodys.com

c. Telecommunications Indices

After a spectacular run-up during the late '90s, the situation in telecommunications stocks today can best be described as a "train wreck." The Nasdaq Telecommunications Index[5] of telecommunications stock prices gained 923 points between December 31, 1997 and March 10, 2000, peaking at a level of 1230.06. The index then proceeded to fall 1145 points to close at 84.95 on August 5, 2002, a loss of over 93%. Changes in the index between January, 1998 and September, 2002 are shown on the chart below.

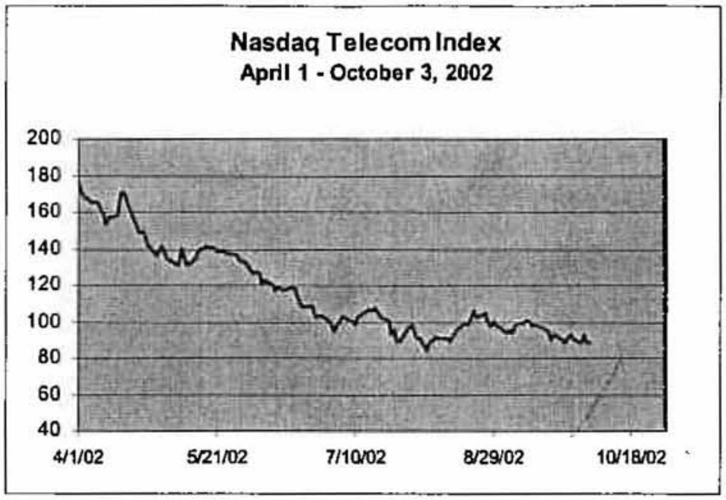


Source: www.nasdaq.com

The overall change in the index between December 31, 1997 and October 3, 2002 was minus 71%. The largest one-day point loss was 10% on April 14, 2000.

Losses in the index between March 31, 2002 and October 3, 2002 have been less severe, but still significant (see below).

[5] The Nasdaq Telecommunications Index consists of 117 companies representing a broad cross section of the industry, including point-to-point communication services and radio and television broadcast companies.

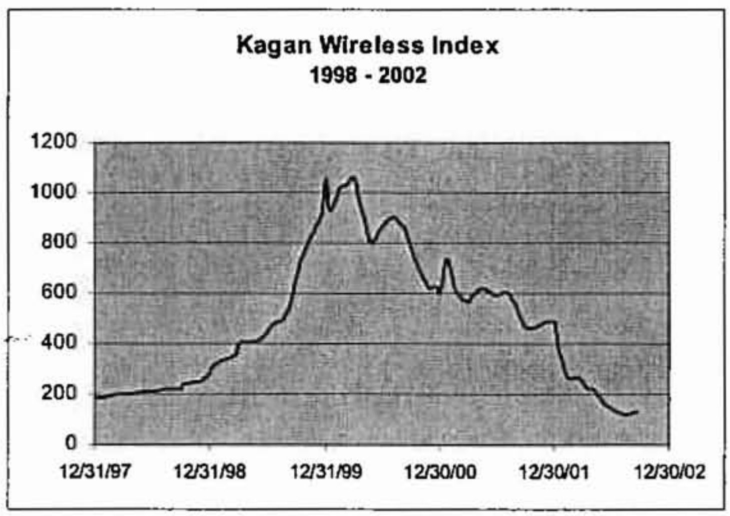


Source: www.nasdaq.com

The index has not attained its April 1, 2002 value of 176.03 in the six months since that date. Instead, the index lost nearly 52% of its value between April 1 and August 5, and has remained in a relatively tight price range since that time.

The Wireless Sector

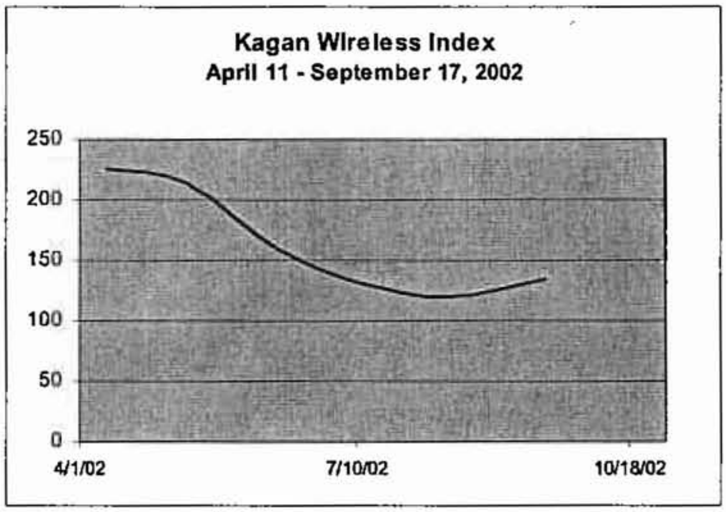
Stock price changes in the wireless sector have mirrored those in the overall telecommunications industry, as shown on the chart below.



Source: Wireless Telecom Investor, published by Kagan World Media

Between December 31, 1997 and March 31, 2000 the index rose 475%. Thereafter it fell nearly 89%, closing at 120.25 on August 13, 2002. Between August 5 and September 17, 2002 (the latest date for which wireless data is available), the index recovered slightly, gaining back approximately 11%. The largest one-month loss occurred between December 29, 2000 and January 19, 2001, when the index fell 24%.

The trend in the wireless sector since March 31, 2002 is shown on the chart below.

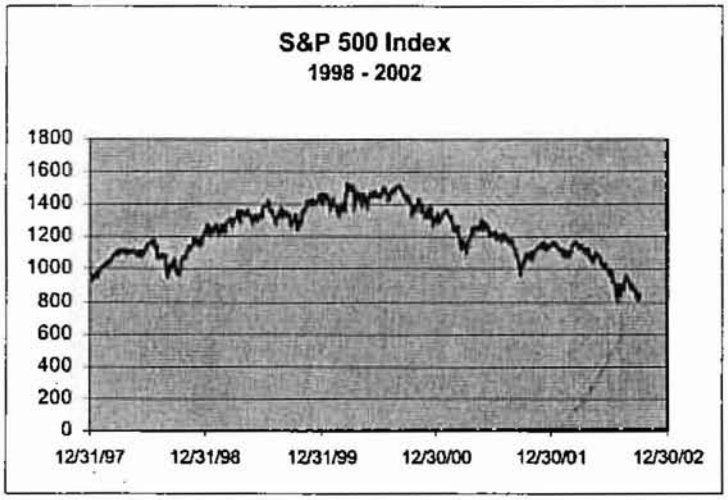


Source: Wireless Telecom Investor, published by Kagan World Media

Between April 11, 2002 and August 13, 2002 the wireless index fell nearly 47%, and then rose just over 11% by September 17, 2002. In one month alone, between May 10 and June 12, the index lost 26% of its value. The overall loss between April and September in wireless stock prices indicated by the index was approximately 41%.

Comparison with the Broad Market

Although losses in the broad stock market, as measured by the S&P 500 index, have been substantial, they have been nowhere near as severe as those in the telecommunications industry (see below).



Source: www.nasdaq.com

The S&P 500 rose 57% between December 31, 1997 and March 24, 2000 before losing 46% between that date and October 3, 2002. This is less than half the percentage point loss experienced by telecommunications stocks during the same period.

Near-term Outlook

While no one can predict where the stock market will go, few analysts are expecting a recovery anytime soon. Jitters over a possible war with Iraq (with an attendant rise in oil prices) are further causing investors to hold back on buying.

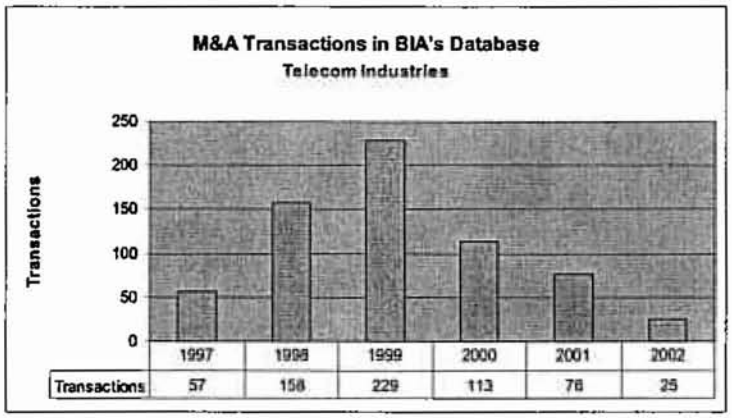
The situation in telecommunications is particularly uncertain in the wake of the Enron debacle and the collapse of Global Crossing and MCI/Worldcom. As CEOs scramble to certify the earnings statements of their companies personally, investors can only wonder how many other companies have produced financial statements that do not reflect the true status of the company finances.

However, we do not believe that the telecommunications industry will simply perish. After all, businesses and consumers cannot do without the equipment and services provided by telecommunications companies, and it is a good bet that they will rely more heavily on that equipment and on those services in the future rather than less so. For this reason we believe that the long-term outlook for telecommunications is relatively bright. In the short-term, however, there is no denying that the industry is undergoing a difficult period, and that further "shakeouts" may be expected.

d. Other Indicators

Merger and Acquisition Activity

The pace of mergers and acquisitions (M&A) in an industry is a general indicator of the health of the industry. When conditions are favorable, companies become expansion-minded, and the number of M&A announcements increases. When conditions are poor, however, companies go into defensive modes, and the number of M&A announcements falls. BIA maintains a database of transactions in the telecommunications industry, based on M&A announcements published in various trade magazines and newsletters. The chart below illustrates the M&A trend between 1997 and 2002.



The chart clearly illustrates that as conditions in the telecommunications market deteriorated in 2000 and 2001, M&A activity declined in similar fashion. The number of transactions observed so far in 2002 is 89% lower than the number observed in 1999. In the current market climate, telecommunications companies simply do not have, and cannot obtain, the necessary capital to undertake expansion programs.

Not only has M&A activity stalled, but prices being paid are lower as well. To use the wireless industry segment as an example, the following table illustrates the trend in prices per "pop" and prices per subscriber paid in M&A transactions between 1998 and 2002:

Industry	Multiple	Typical Value Observed, 1998	Typical Value Observed, 1999	Typical Value Observed, 2000	Typical Value Observed, 2001	Typical Value Observed, 2002
Cellular	Price per Pop	\$201	\$279	\$384	\$499	\$167
Cellular	Price per Sub	\$3,008	\$4,328	\$4,622		\$2,243
PCS	Price per Pop	\$170	\$65	\$308	\$28	\$31
SMR	Price per Pop		\$11	\$3	\$1	

Observe in the Table that between 2000 and 2002 cellular prices per pop dropped 43%, cellular prices per sub dropped 48%, and PCS prices per pop dropped 90%. This is not a market, it's a fire sale!

News Headlines of the Day

A sampling of news headlines from July through October 7th completes the bleak picture of the telecommunications industry at the time this report is being written:

Selection of Telecommunications News Headlines – July – October 2002

LEAP WIRELESS GETS NASDAQ DELISTING NOTICE... it is subject to delisting from the Nasdaq National Market on Oct. 11 for failure to comply with several marketplace requirements.

WIRELESS PRICE WAR IS SLOW SUICIDE...why would the company choose to lure new customers by promoting low prices rather than new products at a time when the troubled industry can hardly afford a new round of discounts?

SPRINT SHARES FALL AFTER ESTIMATES CUTS... Sprint PCS shares fell to a record low of \$2.32 before closing at \$2.58, down 5.8 percent, after parent Sprint Corp. said its wireless unit was shedding customers who failed to pay their bills and expected to post a third-quarter customer loss.

THE GREAT TELECOMMUNICATIONS CRASH...Behind the general jitters in stock markets lies the biggest and fastest rise and fall in business history

THE TELECOMMUNICATIONS CRISIS...To Many Debts; Too few Calls. The telecommunications industry is in a mess. What went wrong, and how can it be fixed?

QWEST REPORTS \$1.14 BILLION LOSS...Revenues are down at Qwest, but the company does report "positive free cash flow".

BROADWING HAS MIXED QUARTER...the carrier suffers from the same problems that most other do in 2Q 2002.

IVR INDUSTRY ON THE ROPES...The Interactive Voice Response industry suffers another hard year, according to new report by In-Stat/MDR.

AT&T LOSES $12.7 BILLION...Ouch. The nation's largest long distance carrier reports second quarter earnings, or lack thereof.

BCE RELEASES EARNINGS...Sagging market hurts Canadian telecommunications.

THE BELL TOLLS FOR AT&T?...the company is apparently on the verge of being kicked-off of the Dow Jones Industrial Average. Stockholders to vote on reverse split this week. (FT.COM)

FALSE PROFITS...Yet another class-action lawsuit is filed against WorldCom and Bernie Ebbers over stock fraud charges.

Source: www.thedigest.com; www.thestreet.com; CBS Market Watch; Reuters Market News; Dow Jones Business News; The Economist

In addition, the telecommunications trade press has echoed the bad news, as evidenced by the following recent stories in *Communications Daily*.

WorldCom's stock price plunged Mon. after downgrades by several brokerage firms, at least 2 of them recommending that investors sell. April 23, 2002, p. 4.

Lucent reported 2nd quarter loss of $495 million, more than $423 million first quarter loss. April 23, 2002, p. 5.

S&P Downgrades Qwest Bonds to Junk Level. May 24, 2002, p. 3.

Moody's cut Sprint debt rating Fri. to one notch above "junk" status, saying carrier had too much debt and might struggle to raise cash in depressed market. June 10, 2002, p. 4.

WorldCom Makes Largest Chapter 11 Filing Ever. July 23, 2002. p. 1.

BellSouth reported 2nd-quarter profit plunged 67% from year ago, to $293 million from $880 million. July 23, 2002. p. 6.

AT&T posted $12.7 billion loss for 2nd quarter Tues. July 24, 2002, p. 7.

SBC said Tues. its earnings dropped 11% in 2nd quarter. July 24, 2002, p. 7.

Lucent posted-$7.9 billion 3rd-quarter net loss. July 24, 2002, p. 7.

Sprint shares Fri. dropped more than 25% to $6.65 on market rumors that carrier wouldn't have enough money to pay off debts, July 29, 2002, p. 6.

Comcast reported 2nd-quarter loss of $209.6 million on revenue of $2.7 billion, August 2, 2002, p. 8.

Qwest reported $1.14 billion net loss in 2nd quarter and 17.3% drop in revenue to $4.32 billion, August 9, 2002, p. 8.

> Wireless phone penetration in U.S. households slowed as fewer first-time subscribers entered market despite decreasing average price of wireless phone calls, J.D. Power & Assoc. said in 2002 U.S. Wireless Industry Services Study released Wed., September 26, 2002, p. 9.

The deplorable state of the industry suggested by the headlines above has to be taken into account in any valuation of telecommunications assets. Despite the fact that discounted cash flow (DCF) models may indicate relatively high present values of expected future cash flows, the likelihood of finding a buyer willing to pay those amounts is extremely low as capital is not readily available and many telecommunications assets are selling through bankruptcies at a fraction of the book value.

Telecommunications Employment[6]

In 2001 the telecommunications industry cut almost 318,000 jobs and until the more recent months, the pace had not slowed in 2002. The first six months of 2002 saw a 27% increase from 2001 in the number of jobs cut with 165,840 in the first two quarters of 2002. The layoffs through June 2002, represent 23% of the national total for all sectors. According to John Challenger, CEO of Challenger, Gray and Christmas, "Telco led the way in 2001 with more cuts than any other industry and it's led for nine out of 12 of the last months[7]. During the third quarter of 2002, the number of layoffs in the telecommunications industry decreased 52% for the previous quarter. According to Challenger, Gray and Christmas, September layoffs were at the lowest level since November 2000. Challenger argues that this is not cause to celebrate. "Some companies may be down to bare bones now and cannot afford to eliminate any more jobs without going out of business. It is probably too early to celebrate, considering that several high-tech indicators have not shown promise."[8]

Given the volatility of the economy today, there needs to be a more substantial and lengthy progression before any conclusions can be drawn from the decline in layoffs.

[6] http://www.washtimes.com/upi-breaking/08072002-015030-8847r.htm

[7] Information Week, July 2002 http://www.informationweek.com/story/IWK20020702S0003

[8] www.boston.com/dailyglobe2/280/business/Telecom_layoffs_drop_but_industry_is_still_hurtingP.shtml,

III. Analysis of Wireless Companies' Performances

In this section, we looked at the wireless companies' financial and operating data to assess the current state of the wireless industry as well as the future outlook. We looked at three big publicly traded players - AT&T Wireless, Sprint PCS, and Nextel – as well as three medium sized players – Leap Wireless, Dobson Communications, and US Cellular. Since third quarter information was not available yet, we used the second quarter information for financial data while including the third quarter data wherever available.

Most of the wireless companies were facing similar problems: slowing growth; price war from fierce competition; and heavy debt loads. As a result, the wireless sector has been largely ignored by the already distressed capital market, which led to the capital crunch of the wireless players.

a. Slowing Subscriber Growth – Did the industry reach maturity already?

According to an annual survey by J.D. Power & Associates, the percentage of households that use wireless telephones in the biggest US markets grew only by 7.6% between 2001 and 2002. That compares with 13% between 2000 and 2001. The survey also added that only 5.8% of non-wireless users are planning to subscribe to wireless services within the next year.

The delayed 3-G introduction will not help the industry to improve the situation, either. As most experts agree, 3G networks will make little difference to consumers, for they would get largely the same services they get over the current, second generation of wireless networks. US and Asian operators do not foresee a need for 3G networks for another four to five years.

Q2'02 Net Subscriber Adds

Carrier	Net Adds ('000)		% Chg
	Q4'01	Q2'02	
AT&T Wireless	N/A	417	N/A
Sprint PCS	N/A	261	N/A
Nextel	480	471	-1.9%
Leap Wireless	395	64	-83.8%
Dobson	45	30	-33.3%
US Cellular	N/A	43	N/A
Verizon	715	709	-0.8%
NTELOS	20	10	-50.0%
Rural Cellular	11	20	+81.8%
Western Wls.	19	6	-68.4%
Triton PCS	68	44	-35.3%
Alamosa PCS	99	20	-79.8%

Source: Kagan's Wireless Telecom Investor, January 10, 2002; Wireless Market Stats, August 22, 2002; BIAfn estimates

As the table above indicates, wireless carriers are experiencing a significant reduction in net subscriber growth. While the slowing growth ranges from minus 84% to minus 2%, it is clear that the carriers will face more difficulty in acquiring new customers while sustaining the existing customers. Leap Wireless saw the biggest decline adding only 64,000 net subscribers, which is 83.8% decline from the fourth quarter, 2001. As a result, most carriers are spending more to add a new customer as shown in the table below. For example, AT&T Wireless spent $39 more (or 11%) per new customer and Leap Wireless grew cost per gross add by $70 per new customer (or 28%). This is another indication that the industry is reaching a maturity level.

Monthly Churn Rates and Cost per Gross Add

	Q4'01		Q2'02	
	Churn	CPGA*	Churn	CPGA
AT&T Wireless	2.7%	$344	2.4%	$383
Sprint PCS	3.0	350	2.9	350
Nextel	2.2	468	2.1	440
Leap Wireless	3.6	246	4.6	316
Dobson	2.1	400	1.8	420
US Cellular	1.9	357	1.8	391

Note: *Cost per gross add

Source: Kagan's Wireless Telecom Investor, August 14, 2002

To make it worse, Sprint PCS gave a warning last week that it expects to report a net loss of customers for the third quarter this year for the first time due to a higher churn rate. In other words, Sprint is the first big player to lose more customers than it gained in the quarter. AT&T Wireless is also expected to have significantly lower net new customers in the third quarter than initially projected by industry analysts. Nextel is a clear exception with the number of subscribers increasing at a much faster pace than other competitors. It announced this week that it will meet the number of subscribers and earnings expectations.

These signals indicate that the US wireless penetration has already reached the saturation level and will not expand further in the near future to reach the level of Europe, Japan, or South Korea where the penetration rates hover around 80% of their population. Since the pie is not expanding as fast as the industry players expected, they are focusing on growth through expanding shares of the pie, which results in price competition and increased acquisition costs per subscriber.

b. Intensifying Competition & Price Wars will not end soon

As mentioned earlier, the industry is facing a slower growth. Most carriers have no option but to participate in the price wars in order to sustain a share of the industry. According to J.D. Power & Associates, the average cost per minute has dropped to 11 cents today from 56 cents in 1995, making it more difficult for providers to generate the same amount of revenue per customer once received. That is the direct result of more than three years of intense price competition.

Last month, AT&T Wireless, the nation's third largest wireless carrier, announced a drastic move in the pricing war, discounting its rates by more than 50% on some promotions. While many financial analysts warn that this kind of "short-term fix" to report continued net subscriber growth might result in more complicated troubles later, it is very likely that the carriers are in another round of serious price cutting going forward, which will affect EBITDA and cash flows negatively.

c. Heavy Debt Loads to pressure wireless carriers

As seen in the tables, financial performance of the six wireless companies below, they have been struggling from bigger losses in the second quarter this year than last year with an exception of Nextel. While some are attributed to more expensive customer acquisition costs as well as slowing revenues, major parts of the deteriorating net margins are the result of bigger interest expenses on heavy debt loads of the carriers.

AT&T Wireless grew its net debt by $3.6 billion while Leap Wireless turned to a net debt position of $1.9 billion in the second quarter this year from net cash of $0.1 million in 2001. To make matters worse, Leap Wireless will have more difficulty to access capital going forward as it will get delisted from NASDAQ as of October 11, 2002. We note that Leap Wireless was the fourth biggest bidder in Auction 35 with the net bid amount of $350 million. Given Leap Wireless' mounting debt position as well as restricted access to equity market, the company will suffer significantly from capital constraints if they cannot opt out of the Auction 35 liabilities.

Financial Performance

	AT&T Wireless		Sprint PCS		Nextel	
Symbol	AWE		PCS		NXTL	
($ in millions)	**2002**	**2001**	**2002**	**2001**	**2002**	**2001**
Revenues '2Q	$3,910	$3,376	$3,018	$2,290	$2,154	$1,881
Revenues '1H	$7,521	$6,586	$5,866	$4,315	$4,111	$3,623
EBITDA 2Q	$1,019	$855	$764	$491	$816	$428
Operating Income 2Q	$335	$260	$221	($57)	$411	$1
Net Income/(Loss)	**$24**	**$263**	**($170)**	**($247)**	**$123**	**($369)**
Net Debt Level	**$6,997**	**$3,353**	**$15,742**	**$15,409**	**$10,812**	**$12,108**
Cash	$3,788	$3,352	$602	$179	$2,687	$3,717
ST Debt	$0	$88	$59	$2,345	$249	$2,010
LT Debt	$10,785	$6,617	$16,285	$13,243	$13,250	$13,815
Capital Expenditures 1H	$2,078	$2,445	$1,428	$1,712	$1,041	$1,912

As mentioned in the earlier sections, Moody's put AT&T Wireless, Sprint, Nextel, and US Cellular on negative outlook for a possible downgrade. This suggests that carriers put more effort to improve their balance sheet and achieve free cash flows sooner as the capital markets will not be willing to inject capital into the wireless carrier, unless they promise much higher return on investments.

As J.P Morgan credit analysts noted last month on their research findings, "the FCC decision for a partial refund has a positive impact on wireless carriers because it eliminates a future drain on liquidity." However, even with the refund, they are still cautious on the bonds of wireless companies, as the industry is very likely to struggle with competition and slowing growth going forward.

Financial Performance

	Leap Wireless		Dobson		United States Cellular	
Symbol	LWIN		DCEL		USM	
($ in thousands)	**2002**	**2001**	**2002**	**2001**	**2002**	**2001**
Revenues '2Q	$151,142	$47,846	$159,881	$153,278	$527,710	$475,289
Revenues '1H	$291,323	$84,599	$303,006	$284,439	$1,006,130	$915,058
EBITDA 2Q	($32,005)	($56,632)	$66,661	$61,949	$176,458	$166,634
Operating Income 2Q	($100,980)	($77,143)	$44,609	$16,525	$100,049	$93,626
Net Income/(Loss)	**($158,590)**	**($128,530)**	**($108,243)**	**($31,893)**	**($89,102)**	**$57,369**
Net Debt Level	**$1,883,184**	**($130,190)**	**$1,039,767**	**$1,460,845**	**$391,030**	**$625,215**
Cash	$207,015	$324,084	$242,634	$161,568	$18,244	$28,941
ST Debt	$92,987	$26,049	$40,958	$46,041	$15,000	$264,000
LT Debt	$1,997,212	$167,845	$1,241,444	$1,576,372	$394,274	$390,156
Cap Ex 1H	$80,035	$71,062	$42,769	$54,848	$256,774	$252,132

Source: Company 10-Q reports

Wireless carriers are planning to cut their capital expenditures and will be continuously forced to cut capital expenditure to achieve positive free cash flows sooner and lower their debt loads to restore the investors' confidence in the industry.

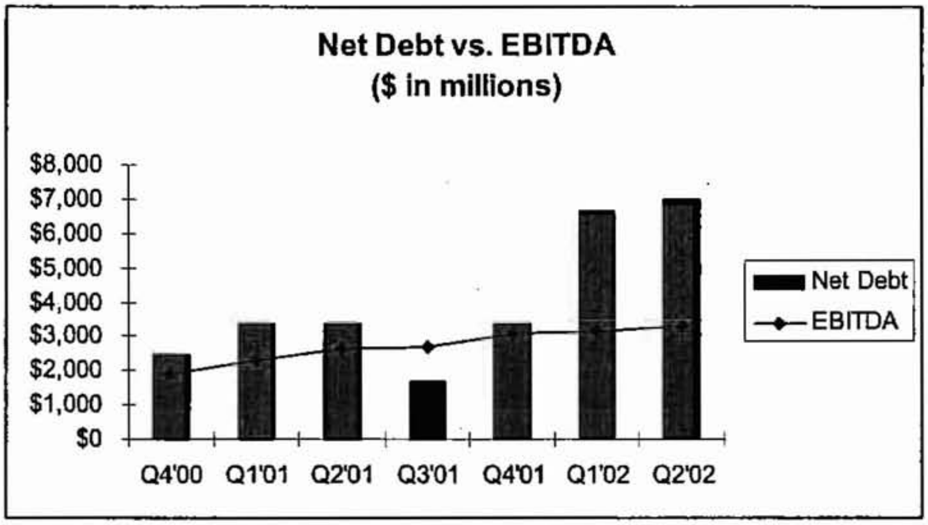
Wireless Capital Expenditure, FY01-FY02

($ in mil)	FY01 Actual	FY02 Projected	% Change
AT&T Wireless	$5,618	$5,300	-5.7%
Sprint PCS	3,755	3,400	-9.5%
Nextel	2,384	2,300	-3.5%
Verizon	5,006	4,500	-10.1%
Leap Wireless	785	300	-61.8%
Dobson	195	140	-28.2%

Source: Kagan's Wireless Telecom Investor, March 13, 2002

d. Impact of Auction 35 Liability – Example of AT&T Wireless

The following chart depicts that AT&T Wireless has been increasing its EBITDA[9] steadily while its debt level grew significantly in 2002. AT&T Wireless' 12-month EBITDA as of end-second quarter stood at only $3.3 billion while its net debt jumped to $7.0 billion with a 109% growth from the end of 2001.



AT&T Wireless provided financial backing to Alaska Native Wireless (ANW) in Auction 35. ANW was the second highest bidder in the auction with total bids totaling $2.9 billion. Out of the $2.9 billion total, $2.8 billion was tied to the Nextwave and Urban Comm spectrum. We looked at the AT&T Wireless's EBITDA and net debt to put this Auction 35 liability in perspective.

AT&T Wireless' financial with the burden of Auction 35 liabilities

($ in millions)	Q4'01	Q2'02
12-mth EBITDA	$3,100	$3,299
Net Debt	$3,353	$6,997
Auction 35 Liabilities	$2,781	$2,781
Total	$6,134	$9,778
Net Debt to EBITDA	2.0x	3.0x

Source: Company Reports, FCC

The financial reports of AT&T Wireless reflect that it already is loaded with debts of $7 billion even without any Auction 35 liabilities. A new liability of over $2.8 billion would increase the debt burden by

[9] Earnings Before Interest, Tax, Depreciation and Amortization

almost 40% for AT&T Wireless and net debt would stand at three times its EBITDA as of the second quarter, 2002. This analysis of AT&T Wireless clearly establishes that the removal of the Auction 35 contingent liability will substantially benefit the company in terms of liquidity, financial stability and competency in the marketplace.

e. Near-Term Outlook

As assessed in the previous sections, most of the wireless players are suffering from three major drivers: slowing subscriber growth, price cuts from fierce competition, and heavy debt loads. We expect the situation to continue for the next 12-18 months and thus, the wireless sector is not likely to restore investors' confidence in the near future. Wireless players are expected to continue to cut prices to sustain existing subscribers and low churn rates while trying to maintain the level of average revenue per user for at least the next 12-18 months until the winners will emerge. In the meantime, they will be forced to lower the debt level by the capital market and some of the companies will go bankrupt or get consolidated by stronger players.

While it remains to be seen how many combinations of the wireless players will emerge in the consolidation process, investors will regain confidence in the industry once they can visualize the survivors vs. losers and then they will resume investing in the sector.

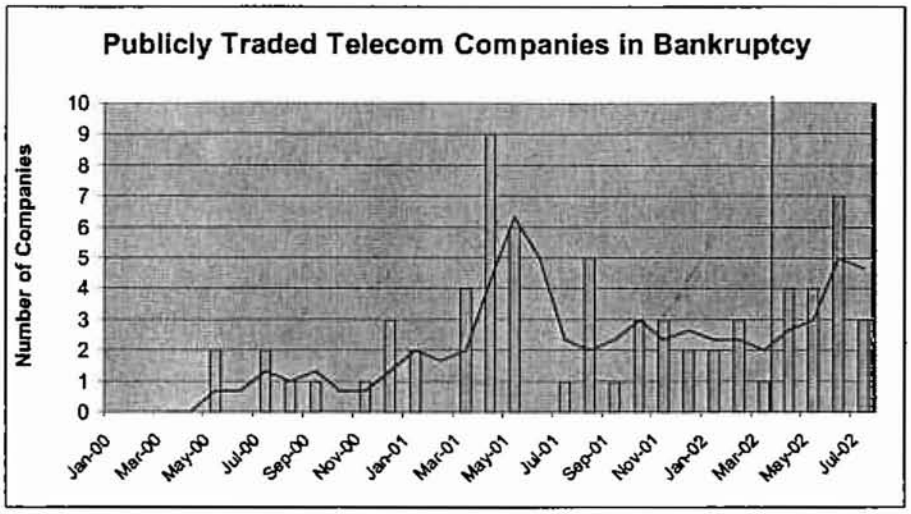
IV. Bankruptcies in the Telecommunications Sector

Another indicator and reference point for the state of the telecommunications industry is an analysis of telecommunications bankruptcies in 2001 and 2002. We have also analyzed bankruptcies occurring since March 31st when the FCC granted partial refunds of the down payments made by certain winning bidders in Auction 35.[10]

We identified a total of 36 bankruptcies among publicly traded telecommunications companies in 2001 and 26 bankruptcies through July 31st, 2002. From January through July 2001 there were 22 bankruptcies, which indicates there has been a slight increase in the number of bankruptcies in the first seven months of 2002 compared to the same period last year. The graph below shows the number of

[10] "Partial Refund Order", Order, FCC 02/99(March 27th, 2002)

publicly traded telecommunications companies filing for chapter 11 protection from January 2000 through July 2002.

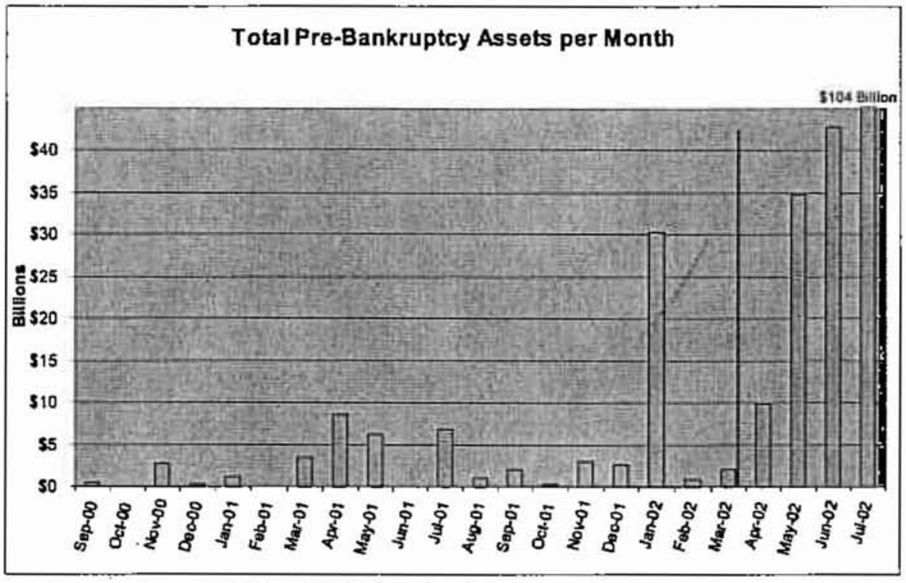


Source: Bankruptcydata.com, the SEC, and various other Internet sources.

The chart shows a spike in bankruptcies in March through May in 2001, followed by a declining trend in the number of cases filed in the following months. As of March 2002, this trend had stabilized somewhat and, at the time, the outlook for telecommunications companies was slightly improved. Although another wave of bankruptcies was expected, it was largely reckoned that it would be less significant than the initial wave of 2001. However, the immediate months following March 31st showed unprecedented records in the number and asset size of bankruptcies, which could not have been predicted as of March 2002. In the six-month period leading up to March, 22 bankruptcies were registered, compared to 20 for the four months of April through July 2002.

However, analyzing the total assets, the total long term debt, and the total liabilities involved in the chapter 11 reorganizations for the companies in the chart above provides a more accurate account of how the continuing problems of telecommunications industry have intensified since March 2002, and it also provides a strong indication that the recovery is not in sight in the next six to twelve months. On average, the asset size of a publicly traded company involved in bankruptcy in 2001 amounted to almost $1.0 billion, compared to an average of only $612 million in 2000. In contrast, in 2002 we have seen bankruptcies of a size that is unprecedented and which exceed the largest bankruptcy in history as of December 2001 (Enron at $63.4 billion in pre-bankruptcy assets). The average size of bankruptcies in 2002 amounted to $8.76 billion, with an average of $6.56 billion pre March 31st and $32.42 billion from

April through July. The graph below illustrates the general trends of how larger and larger companies are forced to file bankruptcy protection.



Sources: Company 10K and 10Q from the SEC.

Many of the companies that filed for chapter 11 have been bought for a fraction of their pre-bankruptcy asset value. For example, Teligent, that had an estimated $1.2 billion in pre-bankruptcy assets, was sold to a newly started venture fund for only $117 million, a mere 10% of the value of its pre-bankruptcy assets.[11] In another recent example, Level 3 offered $1.1 billion for Williams Communications that had an estimated pre-bankruptcy asset book value of $5.66 billion[12]. In some industry segments, such as especially fiber optic, this trend has created a domino effect that is very unfavorable for existing companies that have avoided bankruptcy and have built networks themselves. They now have to compete with companies which have much lower debt burdens and which is able to offer the same services at significantly lower prices that are not feasible for existing players. This affects relatively healthy companies negatively, reducing profit margins and cash flows, affecting credit ratings and the companies' ability to service debt.

The top fifteen largest telecommunications bankruptcies since January 2001 are listed in the table below, further underscoring the fact that the size of the companies now affected by the prolonged downturn, and the variety in industry segments involved (ranging from Internet, data, digital cable, local voice and long

[11] Source: NetworkWorldFusion, Chapter 11 isn't always the End.

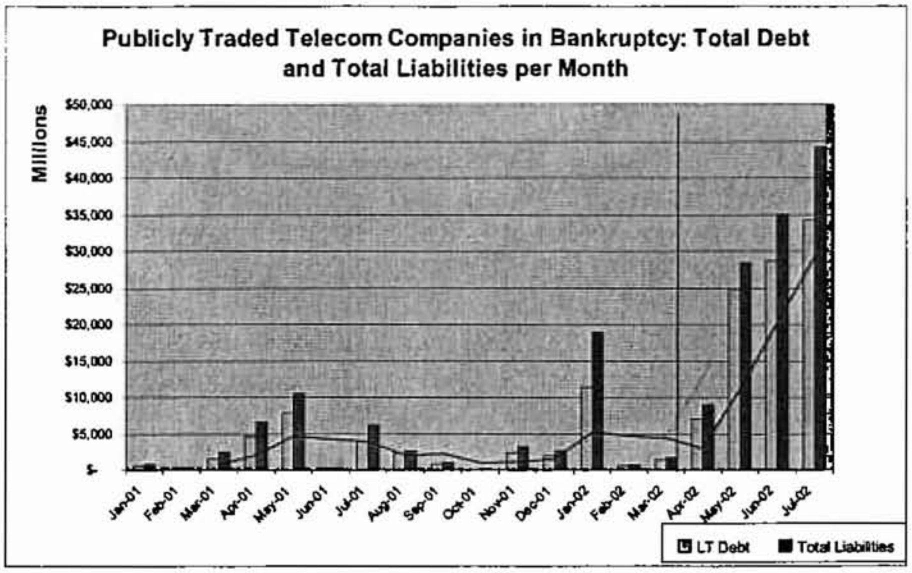
[12] Source: The Economist: The Only Way is Up, Maybe, July 25th, 2002

distance telephone services, messaging to independent competitive local exchange carriers, and fixed wireless providers) has increased.

Company	Date	Pre-Bankruptcy Assets (000)	Total Liabilities (000)
WorldCom,Inc.	7/21/2002	$103,803,000	$43,834,000
NTL, Inc.	5/8/2002	$26,345,500	$20,427,800
Global Crossing, Ltd.	1/28/2002	$25,511,000	$14,639,000
Adelphia Communications Corp.	6/25/2002	$24,409,662	$18,604,914
Century Communications Corp.	6/10/2002	$10,700,263	$7,389,612
Metromedia Fiber Networks	5/20/2002	$7,024,208	$6,799,321
Comdisco, Inc.	7/3/2001	$6,790,000	$6,216,000
XO Communications, Inc.	6/17/2002	$5,704,497	$5,819,436
Williams Communications Group, Inc.	4/22/2002	$5,664,898	$6,711,509
McLeod USA, Inc.	1/31/2002	$4,792,600	$4,419,200
Winstar Communications, Inc.	4/18/2001	$4,469,245	$4,379,270
FLAG Telecom Holdings, Ltd.	4/12/2002	$3,476,666	$1,804,894
Exodus Communications	9/26/2002	$2,891,701	$3,968,259
PSINet, Inc.	5/31/2001	$2,577,100	$4,534,100
Arch Wireless, Inc.	12/6/2001	$2,309,600	$2,251,374

Of the fifteen largest bankruptcies since January 2001, eleven occurred in 2002 and only four in 2001. Furthermore, ten of the bankruptcies occurred after March 31st, 2002. The total amount of assets involved in these fifteen bankruptcies is $236.47 billion and the total liabilities that will be partially or fully defaulted on are $151.80 billion.

The significance of larger companies defaulting, especially since March 31st, 2002, can be seen in the chart below. In this chart we have plotted the long-term debt and total liabilities involved in the bankruptcies of publicly traded companies.



Again the trend is not reassuring, more debt than ever before is at risk to be fully or partially defaulted. The total liabilities involved in telecommunications bankruptcies after March 31st is $170.70 billion or 68% of all liabilities involved in bankruptcies of publicly traded companies since January 2001.

The bankruptcies that we have recorded in our database are spread across many telecommunications industry segments. The list contains technology and equipment manufacturers, long distance companies, CLECs and ILECS, Internet service providers (ranging from DSL to fixed wireless and cable), and a large number of fiber optic companies. Conversely, only a few wireless voice services companies have entered chapter 11 since early 2001 (notably US Wireless). However, we believe that large companies like SBC and Verizon with wireless presence, are heavily influenced by some of their industry segments (such as DSL services) suffering tremendously.

The total pre-bankruptcy assets involved in telecommunications bankruptcies since January amounts to a stunning $263.41 billion. The total assets involved in the six months leading up to March 31st, 2002 was $39.37 billion. In the four months since April 1 of 2002, total assets involved in bankruptcies reached a high of $194.55 billion of which $103.8 came from the MCI WorldCom bankruptcy. The total assets excluding MCI WorldCom is more than twice the number experienced in the six month leading up to April 1.

The trend toward larger telecommunications companies defaulting indicates that the larger telecommunications companies have better access to capital and have been able to fend off bankruptcy longer than small companies. But the slump of the telecommunications sector continues to pressure the large companies, who are now also affected by increasing debt levels, overcapacity, declining revenue, increased competition; price wars, limited access to capital. The focus is on cleaning up the balance sheets and some have had to turn to bankruptcy to have a chance of surviving. As the previous sections have shown, continuously falling market caps, credit ratings, increased debt burdens, and increasing competition for customers are also affecting large companies, and giants such as SBC Communications have not been spared.

We believe that capital resources will be limited in the telecommunications industry as investors look towards more stable industries to invest. Specifically in the mobile wireless arena, investors are expected to hold back to see who will be the surviving companies after a consolidation of the large six wireless operators is inevitable. Given that the industry continues to be in a slump and the consolidation is not expected until it has turned around, we believe that for a 12-18 months timeframe wireless operators will be in a survival of the fittest match before the consolidation. Capital will therefore be limited and none are invincible from bankruptcy over this timeframe. It largely depends on how quick the segments starts climbing up, subscriber growth, debt levels, and the intensity of the competition.

V. Conclusion

BIAfn can only conclude after examining the evidence in our analysis that the wireless industry would be well served by having the Commission refund upon request the unapplied down payments from ungranted Auction 35 applicants and eliminating the contingent liability associated with these applications. This conclusion can be underscored by emphasizing our major findings.

The market cap analyses proved that the losses are staggering. In the telecommunications industry as a whole, investors have lost over $438.8 billion since October 2001. The total decline in market capitalization for the wireless companies we analyzed was 63.8%, from a high of $103.2 billion on October 5, 2001, to a low of $37.4 billion on August 5, 2002. Market capitalization declined a further 44.9% between October 4, 2001 and March 30, 2002. The credit rating analyses also conveyed strong pessimism towards the telecommunications sector. Only two companies out of 15 analyzed have "stable" outlooks, while six are flagged for possible additional downgrades, and the outlook for seven of the companies is outright negative. In addition, Moody's changed the outlook for the US Wireless industry to Negative on June 21, 2002. The wireless index painted a similar picture. Between April 11, 2002 and August 13, 2002 the wireless index fell nearly 47%. The overall loss between April and September in wireless stock prices indicated by the index was approximately 41%.

Our analysis of the state of the six wireless voice carriers showed that they have been struggling from bigger losses in the second quarter this year than last year with an exception of Nextel. Part of the losses are attributed to more expensive customer acquisition costs, slowing revenues, however, the majority of the deteriorating net margins are the result of bigger interest expenses on heavy debt loads of the carriers. It can be concluded the most of the wireless operators are suffering due to slowing subscriber growth, price cuts from fierce competition, and heavy debt loads.

An analysis of bankruptcies concluded our research. The amount of assets involved in chapter 11 reorganizations provided a strong account of how the continuing problems of telecommunications industry have intensified since March 2002. It also provides a strong indication that the recovery is not in sight in the next six to twelve months. Of the fifteen largest bankruptcies since January 2001, eleven occurred in 2002, and ten of them occurred after March 31st, 2002. The total amount of assets involved in these fifteen bankruptcies is over $236 billion and the total amount of liabilities that will be partially or fully defaulted on is over $151 billion.

Therefore, it can be concluded that competitive pressure, continued recession in the telecommunications sector, heavy debt levels and the lack of investor confidence in the industry only paints a bleak picture for the wireless industry in the short term. Consolidation and improved debt levels will be essential for the industry to become healthy. The focus needs to be on fixing balance sheets, getting debt levels under control so that capital will be more readily available. We believe that the FCC therefore would be able to help the wireless industry significantly by approving the opt out of Auction 35, so that the companies can focus on growth and turning the industry around. This action can be justified based upon significant adverse changes in economic conditions since March of 2002 when the FCC issued the *Partial Refund Order*.