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**"The Future of the Telecommunications Industry: A Market Perspective"\***

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Douglas Ashton (DA): At most investment banks, telecommunications analysts cover specific segments of the industry, such as long distance and the regional Bells; cable; or wireless. What I do, though, is a sort of "rogue analysis" of all segments of the industry. I basically run around the whole universe of telecommunications trying to find value in any segment I can.

It is hard to set the parameters of the telecommunications industry, but I will give you an idea of how I see them. First I want to go through the players in the industry, and then I will put the discussion in a framework suggested by Michael Porter's book *Competitive Strategy*. In the book, Porter categorizes different industry environments, and he has one section on "emerging industries." I thought that section fit exactly with telecommunications. This may seem funny because telecommunications has been around for a long time, so how can it be an emerging industry? But it fits every characteristic Porter lists: risky demand side, capital intensity, strategic uncertainty, and regulatory and technological uncertainty.

First, though, I want to define the universe of the industry. To begin with, there are the long distance companies. There are three major ones, AT&T, MCI and Sprint, but also three smaller ones, LCI, ALC, and LDDS. The smaller ones started out as resellers and now own a lot of facilities. Their stocks have been very popular over the last year, although much of the popularity has been based on speculation about the RBOCs (regional Bell operating companies) getting into long distance and buying up these companies for capacity. I am not a big fan of the long distance companies. I generally recommend that people not buy their stocks at current levels but more or less hold them, and if they have some other investment ideas of their own, I recommend that they sell them. My reason stems from consulting I did for the regional Bells before coming to Hancock. Based on a lot of financial/economic work and pricing statistics, we found that long distance prices have not actually been falling in terms of a price-cost basis. The costs of supplying long distance service have been dropping dramatically, but prices have not fallen accordingly. In the international market, the long distance companies are probably making over 50% gross margins. The margins are extremely high on the residential side as well. But market share has not shifted in the industry yet. With AT&T fighting it out with MCI to retain 60-65% of the market, and Sprint staying at about 10%, long distance does not fit into a competitive-industry model.

The long distance companies have been working together to keep prices up and they continue to ride on positive macroeconomic factors. But I think they have reached their peak

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\* This is an edited summary, not a complete transcript of the remarks made by the speakers.

and the cycle is over. The regional Bells will inevitably get into long distance, which will create a big problem. My guess is that the industry will fall very close to a marginal cost basis. As for right now, the buy side has caught up on the long distance stocks. Their valuations are at historical lows, and if people are not buying now you wonder if they will ever buy.

The next part of the industry is the regional Bells. They are very diversified in terms of their revenue sources. They have good cellular holdings and their international businesses are very viable. I was told recently that Bell Atlantic's investment in New Zealand is making over 100% per month, off a pretty sizable base. I think the Bell companies will get increasingly aggressive in international markets, as will GTE.

Then there are the competitive access providers (CAPs). There are three public CAPs: Intelcom Group, Intermediate Communications, and MFS. There is also Telport, which is owned by four cable companies and is part of the Sprint consortium; it is not public but you can get a piece of it if you buy one of those companies. CAPs come in and undercut RBOC prices by running networks directly from office buildings downtown right to the long distance point-of-presence. This avoids the access charges charged by a Bell company or a LEC. The CAPs have been very effective, although the Bells are reacting aggressively after having gotten stung. Right now their stocks are very stable, because there are still a lot of regulatory issues to be resolved and people are tentative to jump in until they see more certainty on the rules.

There are also cable companies, wireless cable companies, and DBS (direct broadcast satellite) companies. DBS companies are doing very well as start-ups. But it is hard to get a piece of them since they are owned by Hubbard Broadcasting and Hughes Network for the most part. The wireless cable companies, on the other hand, have been moving up in regions like the Great Plains where it is possible to put a big antenna and achieve the necessary line-of-sight. A number of companies in wireless cable did extremely well after their initial public offerings, then stabilized, and now don't seem to be getting a lot of interest. On a wireless basis, there are SMRs (specialized mobile radio companies) such as Nextel, Dialpage, Onecom, Geotec and Pitteacrief. Many of these stocks went up as high as \$60 last year, but now they sit at \$10. Nextel is an interesting case. It was founded by a group of lawyers at the FCC who went out and bought up all the dispatch spectrum around the company and are trying to start a telephone company with a lot of investment from Comcast, NTT (Nipon Telephone and Telegraph) and Motorola. The stock was a favorite on Wall Street; I saw a number of buy recommendations in the 50's. I think it went as high as 60, but it is now is at about \$14. So this sector of the wireless industry is extremely volatile, although it has rebounded lately.

Then there are the cellulators, which are my favorite group. Cellular price margins are still very good. Growth is absolutely astonishing. Cellular continues to grow at better than 40% off a very large base. If you connect mobility and the customer, you see really positive feedback from people looking for communications devices. There are also PCS (personal communication services) companies and satellite companies. The PCS auctions are alive and well and bringing billions of dollars to the FCC. Nobody gives the satellite companies any credibility, but people should take a closer look at them. There is Motorola's Iridium project; TRW's Odyssey project; Globalstar, which just went public; and Teledesic which was talked about by Bill Gates and Craig McCaugh. I would recommend that nobody take for granted any idea that those two put together. A lot of these satellite companies have gotten their licenses and have attracted billions of dollars in capital from very intelligent, market-aware people. They offer the possibility of cheap service; it would be a fixed cost business once it is up and running. Their target market is very lucrative: people willing to pay \$2.50 per minute for a cellular call. My guess is they will end up being picked up by cellular and PCS providers and used for long haul traffic on their networks. I think they deserve a lot of attention.

I also consider the computer companies, in particular video conferencing, to be part of the telecom industry. There are some segments of video conferencing that may end up working, especially desktop video conferencing. I recently came across one company which makes the switch that would allow two different video conferencing technologies to work off a standard and interface without any problem. That is the kind of thing I look for — the company that provides the switches everyone will need rather than the company that supplies the software.

The on-line business is a segment of the computer companies. America Online went up about \$12 last week alone and is certainly an interesting story, although the pricing is very high. There is also a whole enhanced service market, which supplies switching and platforms that go into the central office and give you such things as voice mailboxes, fax services and other services that the Bell companies are starting to take a lot of interest in. The margins on these services are amazing. The Bell company makes \$150 million in revenues on voice mailbox business, of which they take home \$100 million. Normally it would take \$1 billion in revenue to take home \$100 million.

Finally, there is programming. The Bells are all forming alliances with Hollywood types around video programming and there is no telling where such alliances will go.

Now I want to return to the characteristics that Michael Porter talked about regarding emerging industries. The first is regulatory uncertainty. We have 50 states moving in different regulatory directions. In addition, the uncertainty at the federal level inhibits the large cap stocks from making a move up or down and leaves them in a minimal trading range. This in turn makes it hard for analysts to predict where they're going to go. When there is regulatory change, though, the market reacts very quickly. For example, there was an SMR ruling this week which moved Nextel up about \$5.

The second characteristic is technological uncertainty. On a wireless basis, we still see the CDMA-TDMA-GSM debate. But as the PCS providers have their spectrum and try and make their buildout, they are going to have to make these technological decisions. This will add a lot of volatility to the stocks that operate within that environment. The wireline network issues have not been resolved either. Bell Atlantic is a good example. A pretty aggressive company in video, it is going out there with three or four different potential architectures. This technological uncertainty affects the equipment companies which supply the service operators. And it is hard for analysts to know where the margins are going to be on a big equipment contract.

Then there is strategic uncertainty. I expect we will see a lot of strategic decision-making — companies reacting, aligning, and merging — as soon as the regulatory uncertainty is resolved. One thing I look for, which I guess you could call strategy, is for companies to start restructuring themselves and give investors a chance to buy specific segments of their business. The cable companies are starting to realize the importance of restructuring because they have been what they consider undervalued by the street. I would look for Time Warner and TCI to be very active in terms of restructuring.

Finally, I mentioned the risky demand side which is really the foundation of the whole industry. The service operators are not sure what will please their customers. In wireless services, in video, in voice, in long distance and on-line, the demand side is not very clear at all.

Richard Klugman (RK): I follow the telecom services end of the industry, focusing on local and long distance companies. I cover 11 large cap companies. There are the seven Bell companies which account for most of the market cap, and GTE, which is about the same size as a Bell company. These eight comprise about 90% of the local telecom industry and more than half of the cellular industry. Then there are the three large long distance companies, AT&T, MCI and Sprint. These companies, especially the Bells and AT&T, come from the old mentality of the Bell system which was not market-oriented but monopoly oriented. They grew up in an environment dating back 100 years, where a company was regulated based on its cost plus whatever profit the regulators deemed it could make. So they did not have a lot of market perspective, although that is quickly changing as we move into a competitive era.

The telecommunications industry is in transition, although I would stress regulatory changes more than technological changes. Although the companies that can harness technology will be in good shape, I do not see technology as the key issue driving profitability. Consider the long distance industry, where AT&T had more than 90% of market share at the time of divestiture. They now have about 60%. Of the two major competitors, MCI has about 20% and Sprint a little over 10%. So MCI got double the market share of Sprint in terms of long distance business, yet Sprint clearly had the best technology. In 1986 Sprint announced the whole pin drop campaign, fiberizing their whole network, while MCI was still working off old microwave

links. So what matters for profitability is not technology, but how well you can market your services. This is something the Bell companies will increasingly have to learn.

Regarding the blurring of traditional boundaries between telephone, cable and broadcast companies, there are some misperceptions. There is a lot of talk about cable and phone companies moving into each other's markets, but there is not really more competition. In the telephone business, the phone companies still have 99.5% of market share. The main competitors such as CAPs (Teleport and MFS) can only locate in states with a competitor-friendly regulatory environment. (I don't include wireless companies as competition because the prices are five to 15 times as high to make a phone call). Right now there are only a handful of states that offer anything close to true competition. There are a lot of issues that have to be resolved before there is true competition. For example, competitors want to see number portability, which would allow people to switch local phone companies and retain their old phone numbers. There are also compensation arrangement issues, in terms of competitors like Teleport having to pay companies like NYNEX every time a local call is completed, but not vice versa. These issues have to be resolved and the regulators will have to play a large role. There was a failed effort in Congress this past year to pass legislation to this end.

What about future competition in the industry? I have tried to isolate this question into four trends that will be important in the industry. The companies that are best equipped to harness these trends, and not fall victim to them, will come out the victors. The first trend is competition displacing regulation. There is a paradigm shift going on, from the traditional regulated monopoly/utility environment toward more competition. This started with long distance in 1984 and we are starting to move in that direction at the local level. To the local phone companies, this presents both opportunities and risks. I believe the risks outweigh the opportunities. As regulations are loosened, the companies are being allowed to go off earnings monitorization, which traditionally set the percent they could earn on their costs. Some more progressive states are allowing phone companies to earn whatever they can, in theory, so long as they do not change prices beyond a certain formula or raise basic residential rates. But the phone companies also face the risk of competition coming in. With a shift from profit to price-regulation, the phone companies have been required to accept the removal of barriers to entry. This increased competition worked in the long distance industry, which is why many congressmen want to pass a bill that would encourage more competition in local service.

The second trend is advanced service proliferation. Consider what the phone companies have done with very simple technology, such as call-waiting service. They have also benefited from technology which they have not themselves created, such as fax machines, as people increasingly order second residential lines. Many phone companies are pledging to spend billions to build advanced services. But I am concerned when they talk about moving into the cable arena, in terms of the return they can expect. However, the phone companies feel they have to offer a full array of services including video, to meet the demands of their customers.

The third trend is wireless omnipresence. There are 25 million cellular phone users in the United States, which is close to 10 percent of the population. That figure is forecasted to rise to 40 percent within the next five years. But cellular is still very expensive. The two cellular carriers are a duopoly with no incentive to lower rates. People are willing to pay, which is amazing when you consider how poor the quality is. However, quality will improve as phone companies digitize and new PCS licenses come on board.

The last trend is globalization. While the three other trends have uncertainty attached to them, globalization is certain. There are countries with only one or two lines per 100 people. Developing countries need to improve their infrastructure; there is a tremendous push to add phone lines. In China the equivalent of one Bell company is being added every year, so there are huge opportunities. There is clearly a role for outside experts who know how to build networks. This includes local phone companies which have a lot of free cash flow to spend on good investments and are looking for less regulated environments to invest in.

Beth Rosenson, Rapporteur