Memo to: Oaktree Clients

From: Howard Marks

Re: bubble.com

The book "Devil Take the Hindmost" by Edward Chancellor does an excellent job of chronicling the history of financial speculation. In doing so, it recounts the story of "the South Sea Bubble" and provides a backdrop against which I'd like to examine some of the events of today.

The South Sea Company was formed in 1711 to help deleverage the British government by assuming some of the government's debt and paying it off with the proceeds of a stock offering. In exchange for performing this service for the Crown, the company received a monopoly for trading with the Spanish colonies in South America and the exclusive right to sell slaves there. Demand for the company's stock was strong due to the expectation of great profits from these endeavors, although none ever materialized. In 1720, a speculative mania took flight and the stock soared.

Sir Isaac Newton, who was the Master of the Mint at the time, joined many other wealthy Englishmen in investing in the stock. It rose from £128 in January of 1720 to £1,050 in June. Early in this rise, however, Newton realized the speculative nature of the boom and sold his £7,000 worth of stock. When asked about the direction of the market, he is reported to have replied "I can calculate the motions of the heavenly bodies, but not the madness of the people."

By September 1720, the bubble was punctured and the stock price fell below £200, off 80% from its high three months earlier. It turned out, however, that despite having seen through the bubble earlier, Sir Isaac, like so many investors over the years, couldn't stand the pressure of seeing those around him make vast profits. He bought back the stock at its high and ended up losing £20,000. Not even one of the world's smartest men was immune to this tangible lesson in gravity!

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It's obvious from "Devil Take the Hindmost" that many elements of speculative behavior were present during the South Sea Bubble. I'll cite some of its passages below and point out the parallels to today that I see:

"The ideology of self-interest had recovered after the battering it received after the crisis of the mid-1690s ... its thesis [was] that private vices - avarice, prodigality, pride and luxury - produced public benefits." [Sounds like the "greed is good" rationalization of the 1980s.]

The success of South Sea spawned talk of any number of speculative schemes, some of which was probably apocryphal. "The most famous of the legendary bubble companies was that 'for carrying on an undertaking of great advantage but no one to know what it is." [I can't understand what it does, but that's okay; just tell me the name, II. or maybe the symbol's enough.]

Despite their lack of profits, companies like South Sea were able to finance their operations by issuing stock at higher and higher prices. "The circularity inherent in the scheme made a rational calculation of the shares' fair value difficult to compute. Some argued that the higher the shares rose, the more they were actually worth 'Was there ever such a delusion from the beginning of the world ... according to this Way of Computing, no Person can Purchase at too high a Rate, since his Profit will increase in Proportion to the Price he gives.'" [There's no such thing as too high a price if the concept is right, and the ability to issue stock at rising prices will lead to profitability.]

"Adam Anderson, a former cashier of the South Sea Company, later claimed that many purchasers of shares ... bought knowing that their long-term prospects were hopeless, since they aimed to get 'rid of them in the crowded alley to others more credulous than themselves." [The greater fool theory is nothing new.]

"As Edward Ward observed in his poem 'A South Sea Ballad':

Few Men who follow Reason's Rules,
Grow fat with South-Sea Diet,
Young Rattles and unthinking Fools
Are those that flourish by it."
[The profits went to those unrestrained by reason or experience.]

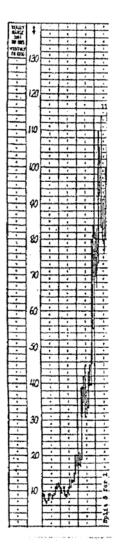
Robert Digby wrote "The South Sea Company is continually a source of wonderment. The sole topic of conversation in England revolves around the shares of the Company, which have produced vast fortunes for many people in such a short space of time. Moreover it is to be noted that trade has completely slowed down, that more than one hundred ships moored along the river Thames are for sale, and that the owners of capital prefer to speculate on shares than to work at their normal business." [The name of the company was on everyone's lips, the fortunes it created were front-page news, and the average Joe was willing to give up his day job to participate ... sound familiar?]

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I will devote the rest of this memo to what certainly seems to me to be another market bubble. Before doing so, however, I must point out a few things: First, as usual, little that I will write will be original; instead, I hope to add value by pulling together ideas from a number of sources. Second, a single word suffices to describe my recent caution regarding the stock market: wrong. Nevertheless, I'll admit my negative bias and

the fact that I have found the bears convincing and the bulls Pollyanna, and then move on to discuss the effect on the market of technology as we move into a new millennium. In short, I find the evidence of an overheated, speculative market in technology, Internet and telecommunications stocks overwhelming, as are the similarities to past manias.

• <u>Changing the world</u> -- Of course, the entire furor over technology, e-commerce and telecom stocks stems from the companies' potential to change the world. I have absolutely no doubt that these movements are revolutionizing life as we know it, or that they will leave the world almost unrecognizable from what it was only a few years ago. The challenge lies in figuring out who the winners will be, and what a piece of them is really worth today.



The graph at the left shows the stock price performance of the leading company in an industry that was thought capable of changing the world. For that reason, the stock followed the explosive price pattern that has become typical for technological innovators. The predictions were correct: the industry did change the world, and the company was its big winner.

The industry was radio. In the 1920s it was expected to change the world, and it did. Its ability to communicate without wires created entertainment in the home, electronic advertising and the live delivery of events. The company was RCA, and as the industry leader its stock rose from \$8 in mid-1927 to \$114 in mid-1929.

While part of the stock's appreciation was due to the market boom in which it shared, certainly part was also due to an overvaluation of its potential. After the onset of the Great Crash, RCA's stock fell from that high of \$114 to \$2½ within three years. The Depression can be blamed for some of this decimation, but it is worth noting that even 25 years after the 1929 peak, when the Depression and World War II were well over and the post-war recovery was underway, RCA's stock had yet to get back to a third of its earlier high. The times, the industries and the companies are certainly different today, but it makes one wonder whether investors aren't again overpaying for the ability to change the world.

Similarly, a recent article in Fortune reported Warren Buffet's observation that airplanes and automobiles had been expected to change the world and did ... and almost all of the manufacturers of both are now gone. Few things have had the impact on the world that aviation did, but from its founding through 1992, the cumulative profit of the airline industry was zero!

As usual, Buffet puts it as succinctly as anyone could: "The key to investing is not assessing how much an industry is going to affect society, or how much it will grow, but rather determining the competitive advantage of any given company and, above all, the durability of that advantage. The products or services that have wide, sustainable moats around them are the ones that deliver rewards to investors." (Emphasis added) (Three years ago, everyone wanted to be Warren Buffet, or at least read books about him. Now, appearing to have missed out on the technology movement, he and his investment approach are dismissed as passe by the dot-com gang.)

• Altered lives -- During the South Sea bubble, as described above, boats were put up for sale and people with capital shifted from being workers to being investors. In a striking parallel, the Internet-commerce revolution is also changing lives. Of course, we know that thousands of Americans have become on-line traders either full- or part-time. Articles describe people who are trying to "ride the trend" of hot stocks and benefit from their momentum, but there's little indication that they have any idea what makes companies do well or stocks go up (or even what some of their companies do). The Wall Street Journal of December 7 cited an individual who has spent his full time in the prior five months trading the stock of one company, CMGI, which invests in Internet ventures; he doesn't know the CEO's name.

Also striking is the effect this is having on business education and young careers. A front-page article in the New York Times of November 28 reported that applications at many business schools were flat or down, the number of Americans taking the GMAT exam was down sharply, and not-insignificant numbers of MBA students were dropping out after the first year to join the hot fields. As a professor of entrepreneurship told me, all of the e-commerce claims will be staked out in the next year or two; students can't risk staying in school and seeing someone else act on their ideas. Five years ago, the hot area for new MBAs was investment banking. Now, I hear, investment banks can't get the top students to sign up for interviews and are having trouble meeting their recruiting goals.

The pressure to move toward the high-change areas is great, and people are succumbing. Everyone in the investment profession knows (or knows of) somebody who has made hundreds of millions (or a billion) this year on a dot-com investment. One can imagine that this makes the buyout specialists who built fortunes over a lifetime feel like underachievers. Private equity firms are getting involved in companies at earlier stages, and with the dot-coms. On November 30, a Wall Street Journal article about defections of buyout specialists to venture capital firms cited a KKR partner who had resigned to do just that.

Venture capitalists and technologists, in turn, are moving to Internet firms. As a sign that it's even becoming hard for more mature technology firms to hold onto people, the CFO of Microsoft recently quit to join a fiber-optic company. Remember, Microsoft has already been public 17 years; the gold-rush is over at the established firms, and the overnight fortunes have been made. Even investment bankers are in transit; on December 14, a New York Times article on the subject was headlined "Wall St. Is Flush With Cash But Also Green With Envy." A Harvard Business

School professor aptly mixes his metaphors, likening the rush of executives to Internet-related ventures to "a tsunami of people chasing a pot of gold."

• The lure of venture capital - I recently presented the case for distressed debt to three classes in entrepreneurial finance at the University of Chicago Graduate Business School. The response of half the students was simple: Why settle for 20-25% per year when you can make 100% in venture capital?

Just as venture capital is attracting young businesspeople, it is also turning heads in the investment community. One university treasurer told me his school's \$29,000 investment in Yahoo! via a venture fund grew to \$54 million (and would be more than twice that today if it hadn't been sold). Why do anything else, indeed?!

Before we succumb to this reasoning, however, (and run out to start the OCM Venture Capital Fund), we should first review the data concerning venture capital's brief history.

- For funds raised between 1984 and 1989, the median return to Limited Partners ranged from 7.5% to 15.1%. For funds raised between 1990 and 1994, it ranged from 20.4% to 29.7%. These are healthy returns, but certainly the typical v.c. investor enjoyed no bonanza in that period. A quarter or more of the funds raised in almost every year provided returns ranging downward from 10% to negative territory.
- It's only for funds started in the mid-to-late 1990s that the returns have been so eye-popping. For each vintage year beginning in 1994, there has been at least one fund with a return above 200%/year. And yet, the median returns thus far for vintage years between 1994 and 1999 range only from zero to 33.7% (although it can be argued that it's still early).
- While it's hard to settle on a "typical" vintage year for venture capital, 1994 is a reasonable candidate. Its funds are five years old, so there has been time to bring companies to fruition and to market. And certainly, the environment has been positive. In fact, 1994's top fund has returned 235%/year so far, and the average fund has returned 45%/year, an impressive figure. But averages can be deceiving, and this one has certainly been pulled up by the best performers. The median fund is up only 22.5%/year. Half the funds have annual returns below that (by definition), and the returns in the bottom quartile range from 6.4% to minus 13.2%.
- The recent years all show similar patterns (although it's too early for meaningful results to be in): phenomenal for the big winners, good on average, but certainly not universally successful yet.

Having reviewed the historic data, what can we say about the future? Certainly, the venture capital funds are "where it's at": the toll bridge through which world-changing companies are likely to pass. Does that mean they're a good investment today?

I feel strongly that no investment opportunity is so good that it can't be screwed up by the wrong relationship between supply and demand. Too much money for too few ideas can mean ruinous terms and purchase prices that are too high. To my mind, the immediate outlook for venture capital is called into question by:

- the ardor that has been ignited by recent "headline" returns,
- thus the huge amount of money looking for a home in ventures,
- the expanded amounts that v.c. firms are accepting in their new funds,
- the strengthened negotiating position of entrepreneurs relative to venture capitalists,
- thus the need among v.c. firms to compete in haste to make investments,
- the ease with which junior members can leave v.c. firms to start their own funds,
- the strengthened negotiating position of venture capitalists relative to their investors, and
- thus the ability of v.c. firms to raise their incentive fee percentage.

In my experience, the big, low-risk profits have usually come from investments made at those times when recent results have been poor, capital is scarce, investors are reticent and everyone says "no way!" Today, great results in venture capital are in the headlines, money is everywhere, investors are emboldened and the mantra is "of course!"

In this context, it's very much worth noting that in 1994, someone looking at venture funds formed from 1981 to 1992 would have seen only one vintage year with an average net return above 12%, and nine out of twelve years with single digit average returns. Despite the lukewarm results as of that date, a few forward-looking investors were willing to commit \$7.8 billion to venture capital funds, and it is they who are earning the returns we see. In 1998, on the other hand, the 200%+ results on the top funds formed in recent years egged investors on to commit more than three times that amount: \$26.1 billion. Today one hears only that investors want to put more into venture capital but can't get access to the most desirable funds. I'll leave it to you to deduce the implications for future returns.

• The role of the IPO: A "mania-within-a-mania" has taken flight in the high-tech investment world, and it surrounds Initial Public Offerings. In years past, new issues had to be priced to sell, and companies accessing the public equity market for the first time had to hope they could get investors to pay a fair price. Now, investors are sure that buying stock on a new issue - at the price the founders are willing to sell at - is the ticket to easy money. And to date it has been.

It is reported that the average new issue of 1999, which on average is probably about six months old, is selling roughly 160% above its issue price (for four times the average gain in the next-best year). For an example, The Wall Street Journal of December 8 described the case of Akamai, which went public on October 29 at a price of \$26. It closed that day at \$145, for an equity market value of \$13 billion. "Fourteen months earlier, ... it could never have gotten such a reception," The Journal added. "It didn't exist." Akamai's price

is \$328 today, bringing its market capitalization to \$29 billion. (By the way, in the first nine months of 1999, Akamai lost \$28 million on \$1.3 million of sales.)

The ability to participate in IPOs has become a major perk. Investment banks compete with other money managers by promising wealthy individuals allocations in their IPOs. Technology companies allocate IPO shares to their customers as a way to cement business relationships.

As usual, I don't think investors are thinking this through. The Akamai IPO was priced at 18% of the first day's closing price. So either (a) the founding entrepreneurs and investors sold it 82% below its fair price (and who would know better than they would?) or (b) the market's wrong. It may well be that issuers intentionally underprice their offerings so that the first day's rise will create the "buzz" that will enable (1) the companies to finance their losses and their expansion through additional stock issuance and (2) the founders to sell their remaining shares. I'm sure some of that is at work here, but how much? If the closing price of \$145 was "right," Akamai left almost \$1 billion on the table in the IPO by selling eight million shares at \$26.

Further, how much due diligence is being done on each new issue? How experienced are the people doing it? How strict are the valuation parameters they're using? How will the post-deal prices hold up when the lock-up periods end and the founding entrepreneurs and venture capitalists start selling the 80-90% of the stock that they still own? And what will happen when the options used to attract employees - and to pay service providers - begin to be exercised and the shares sold? What price will supply/demand dictate when the supply of stock increases five or ten times?

Today, it seems companies are formed and start-up financing is raised not through discussions of the companies' profit potential, but with reference to the possible timing and pricing of an IPO. The recent book "The New, New Thing" by Michael Lewis, about the career of venture capitalist Jim Clark (Silicon Graphics, Netscape, Healtheon), makes it clear that in many cases, today's entrepreneur isn't thinking idea/startup/company as might have been the case in the past; rather, it's idea/startup/IPO. Cashing in used to be the result of successful company-building. Now it's often the end in itself. It's the IPO that's "the thing."

• <u>How will the companies make money?</u> -- Many of the new firms have great ideas for making money, but it's appropriate to wonder whether they'll work, how the competition in each "space" (that's the dot-com term for a business niche) will develop, whether profits will materialize, and whether they'll be sufficient to justify today's stock prices.

I don't think anyone would disagree that it's one thing to innovate and change the world and another thing entirely to make money. Business will be different in the future, meaning that not all of the old rules will hold. On the other hand, profits come from taking in more in revenue than you payout in expense, and I don't think that's going to change. I'll highlight below just three of the areas in which I have questions about profitability.

First, will the Internet and dot-com companies be able to charge enough for their products to make money? Front page articles in The New York Times (October 14) and The Wall Street Journal (July 28) discussed the fact that many of the Internet's offerings are free. Decades ago, merchants discovered that they could sell more if they cut prices. The Internet firms have taken that one step further: they can move even more merchandise if they give it away. As the CEO of Egreetings Network says, "Charging for [greeting] cards was a small idea. Giving them away is a really big idea." Says a venture capitalist, ".... it's a fact of life on the Internet: People expect a lot of things for free. And if you don't give it away, some other start-up will."

Internet firms are giving away faxes, long-distance phone calls, music, web browsers and even Internet service itself. "The marginal cost of adding another user is practically zero," says one venture capitalist. The trouble as I see it is that the marginal revenue is exactly zero. Obviously, these firms are giving their services away in order to build traffic, tie up market share early and/or sell advertising space. It's far from clear that profits will follow.

As I read the articles mentioned above I was reminded of a great series of jokes my father told when I was young:

"I lose money on everything I sell."

"Then how do you stay in business?"

"I make it up on volume."

"I lose money on everything I sell."

"Then how do you stay in business?"

"I'm closed Sundays."

"I sell everything at cost."

"Then how do you stay in business?"

"I buy below cost."

The riddle of profitability is very much present in this area. I'm sure some firms will solve it - but far from all of them.

Second, how practical are the business models of the dot-com firms? It seems like ancient history, but I seem to remember that doing business in cyberspace was going to eliminate the need for conventional advertising, and "virtual inventories" were expected to replace brick-and-mortar warehouses filled with merchandise. Now we read about the huge sums Amazon.com is spending on warehouses, and media advertising is sold out at high prices because the Internet firms are bidding for it so aggressively. EToys will do business without stores and will just own warehouses, but what is a Toys 'R' Us store other than a warehouse with the front prettied up? Webvan Group sell groceries over the Internet, saving on store costs but providing free delivery. According to the December 15 Journal, however, "as of Sept. 30, Webvan's average order size was \$72 -too small to absorb the costs of home delivery. For the first nine months of 1999, in fact, Webvan

had a \$95 million loss on revenue of just \$4.2 million."

Lastly, what will be the effect of competition? It will take time, and there will be big cannibalization issues, but eventually the incumbents in each area will move to defend their businesses against the e-commerce firms. Merrill Lynch bit the bullet and decided to enable customers to trade on line as a response to E*Trade. Albertson's and Kroger have announced that they'll mount experimental home delivery systems rather than let firms like Webvan have the grocery business. The December 17 L.A. Times reported that Toys 'R' Us and Walmart had opened online shopping sites in competition with EToys. (EToys' stock is now off 70% from its high three months ago, wiping out \$7.1 billion of market value). Dot-com companies will get there early, make inroads and drive up costs for the conventional firms, but they will face determined competition from incumbents fighting for their lives.

Even among just the dot-coms, competition is bound to delay and limit profitability. Most of today's e-commerce companies can, at best, boast of early entry and leading market share (the so-called "first-mover advantage"). Rarely is there patent protection, meaningful product differentiation or other substantial barriers to entry. The companies can't count on brand loyalty, because it's all just about low price. There'll always be someone waiting in the wings to cut price (perhaps to zero) for market share, and given the ease of gathering information on the Web, consumers will always be able to immediately find the lowest price. Location won't matter, because in cyberspace, everyone is everywhere. I think factors like these are likely to render profitability elusive and transitory.

• What are the companies worth? - Eventually, this is what it comes down to. It's not enough to buy a share in a good idea, or even a good business. You must buy it at a reasonable (or, hopefully, a bargain) price.

Vast amounts of ink have been devoted to the valuations being put on the new companies. For The New York Times's time capsule, David Letterman compiled a list of The Top 10 Things People in the Year 3000 Should Know About Us. As a sign of the times, he included "If you wanted a billion dollars, all you had to do was think of a word and add dot com."

Priceline.com, which auctions off discount air tickets, (September quarter sales of \$152 million, net loss of \$102 million) has a market capitalization of \$7.5 billion, while United and Continental Airlines (\$7.1 billion sales, \$469 million earnings) are worth a combined \$7.3 billion.

- Webvan Group, which started up in business in 1999, had sales of \$3.8 million and a \$350,000 profit in the September quarter. The stock market currently values it at \$7.3 billion.
- On December 9, VA Linux went public at \$30 and soared 698% that day to \$239, for a market value of \$9.5 billion, half that of Apple. To that date, the company's 1999 sales were \$17.7 million and it had lost \$14.5 million (versus Apple's profit of \$600 million in the most recent twelve months). (VA Linux broke the record for an opening day rise. It had been held since November 1998 by theglobe.com, whose stock rose 606% on the first day, from \$4½ to almost \$32. Now it's at \$8.)

Among non-Internet tech companies, Yahoo! is worth \$119 billion, more than General Motors and Ford together. At the current stock price of \$432, its p/e ratio on 1999 estimated earnings is just over 1,000. America Online trades at almost 250 times projected earnings for the June year currently underway, and Cisco trades above 100 times. Charles Schwab, the apparent winner among brokers in the new era, trades at 54 times estimated 1999 earnings, triple the multiple for Goldman Sachs. According to Barron's, the price/earnings ratio of the Nasdaq crossed 170 in November and may have reached 200 at year-end ... and that's the <u>average</u>.

An analysis by Sanford Bernstein shows that on September 30, you could have bought America Online and Microsoft for \$625 billion and gotten \$25 billion of sales and \$7 billion of earnings. Alternatively, for \$635 billion you could have bought 70 industrial, financial, transportation and utility companies including Bank of America, Chubb, Federated Department Stores, Litton, Philip Morris, Ryder and Whirlpool and gotten \$747 billion of sales and \$43 billion of earnings. The future certainly looks better for AOL and Microsoft than for those other companies, but does the differential warrant a p/e ratio 6 times as high (89 versus 15)?

And that's for "established" companies. Because the price/earnings ratios of Internet companies are so outlandish - usually negative - one may be forced to look to the price/sales ratio in order to speak about valuation. Red Hat, for example, sells at about 1,000 times its annualized revenues in the August quarter. Many of the Internet and tech companies are just concepts, and their stocks have truly slipped the valuation moorings.

Under these unusual circumstances, The Journal wrote on December 10, "stock valuations take on an unusually large importance in gauging a business's performance." In other words, in the absence of other signs, people must look to the share price for an indication of how the company is doing. Isn't that backwards? In the old days, investors figured out how the business was doing and then set the share price.

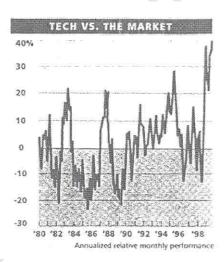
In this valuation parameter vacuum, a "lottery ticket mentality" seems to govern the purchase decision. The model for investments in the tech and dot-com companies isn't the likelihood of a 20% or 30% annual return based on projected earnings and p/e ratios, but a shot at a 1,000% gain based on a concept. The pitch might be "We're looking for first-round financing for a company valued at \$30 million that we think we can IPO in two years at \$2 billion." Or maybe it's "The IPO will be priced at \$20. It may end the

day at \$100 and be at \$200 in six months." Would you play? Could you stand the risk of saying no and being wrong? The pressure to buy can be immense.

There have always been ideas, stocks and IPOs that produced great profits. Yet the pressure to participate wasn't as great as it is today because in the past the winners made millions, not billions, and it took years, not months. The upside in the deals that've worked so far has been 100-to-l (give or take a zero). With that kind of potential, (a) the upside becomes irresistible and (b) it doesn't take a very high probability of success to justify the investment. I have said in the past that while the market is usually driven by fear and greed, sometimes the strongest motivator is the fear of missing out. Never was that as true as today. This only intensifies the pressure to join in and crawl further out on that limb of risk.

With broader relevance than just the dot-com stocks, the relative performance chart below from Barron's of September 27 (already quite outdated) shows two things:

- 1. over the last two decades, technology stocks have had periods of both underperformance and overperformance relative to the large-cap universe, and
- 2. the recent outperformance is unparalleled even in this bullish period.



Nothing in this chart suggests that it'll be easy money in technology from here. As Alan Abelson wrote when he ran the graph, "Our reservation here is that (a) technology, like everything else in life, is cyclical; and (b) there's something *goofy* about the price of a stock discounting as much as a century of earnings for a company in a field where change is the only constant and where the pace of change is constantly quickening." (Emphasis added)

In September Steve Ballmer, President of Microsoft, said he thought tech stocks were overvalued. The stocks are much higher today, and his own is up more than 20%. Whose opinion matters? Is there a price that's too high?

Barton Biggs, Chairman of Morgan Stanley Dean Witter Asset Management, is a well-respected observer who has been somewhat cautionary to date (and wrong). His November 29 strategy piece was without equivocation. I'll let him sum up.

The technology, Internet and telecommunication craze has gone parabolic in what is one of the great, if not the greatest, manias of all time ... The history of manias is that they have almost always been solidly based on revolutionary developments that *eventually* change the world. Without fail, the bubble stage of these crazes ends in tears and massive wealth destruction ... Many of the professional investors involved in these areas know that what is going on today is madness. However, they argue that the right tactic is to stay invested as long as the price momentum is up. When momentum begins to ebb, they will sell their positions and escape the carnage. Since they have very large positions and since they all follow the same momentum, I suspect they are deluded in thinking they will be able to get out in time, because all other momentum investors will be doing the same thing. (Emphasis added)

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I am convinced that a few essential lessons are involved here.

- 1. The positives behind stocks can be genuine and still produce losses if you overpay for them.
- 2. Those positives and the massive profits that seemingly everyone else is enjoying can eventually cause those who have resisted participating to capitulate.
- 3. A "top" in a stock, group or market occurs when the last holdout who will become a buyer does so. The timing is often unrelated to fundamental developments.
- 4. "Prices are too high" is far from synonymous with "the next move will be downward." Things can be overprized and stay that way for a long time ... or become far more so.
- 5. Eventually, though, valuation has to matter.

To say technology, Internet and telecommunications stocks are too high and about to decline is comparable today to standing in front of a freight train. To say they have benefited from a boom of colossal proportions and should be examined very skeptically is something I feel I owe you.

P.s.: The apocalyptic view of the current situation states that the world economy is dependent on the prosperity of the United States; the prosperity of the United States is based on the health of its stock market; the performance of the stock market is being driven by gains in a relatively small number of tech, Internet and telecommunications stocks; and therefore, when the inevitable correction comes in those few stocks, the ramifications will be worldwide. No one knows the extent to which this hypothesis will be proved correct. The column below, from The New York Times of January 1, 2000, presents a more benign and enjoyable view.

FLOYD NORRIS

Remembering Wealth: Life in Post-Crash Silicon Valley

My New Year's resolution is to file my columns early. This one was written 10 years before deadline.

SAN JOSE, Calif., Dec. 30, 2009

NLY a decade ago, the Silicon Valley of California
was viewed as technology's promised land, a place
where bungalows cost \$1 million and even the
youngest computer programmer had stock options that
seemed likely to be worth millions soon.

But now, years after the Internet crash of 2003, it has become a region of jealousies and recriminations. Working relationships were poisoned when employees learned that top executives secretly hedged their positions, and thus did not suffer. Banks sued formerly wealthy entrepreneurs, saying they hid assets to avoid paying their debts.

All that has happened even though many of the Valley's technology companies remain very successful, and the Internet-based economy continues to gain at the expense of the older bricks-and-mortar economy. But few of the companies have lived up to the high expectations that were factored into stock prices before they fell. Many of the highest fliers have vanished from the landscape, either going out of business or being acquired by competitors for a fraction of the prices their shares once fetched.

Among the survivors, employees scarred by the col-



lapsing value of their stock options now prefer the certainty of higher salaries.

It is the fate of the once-bountiful stock options that has most determined the current pecking order in Silicon Valley. At the top are those who cashed in their options before the fall. Next come those who worked for companies that prospered.

Their salaries have helped to offset the paper losses, and many companies repriced their options after prices fell, thus saving some value for the employees, before angry shareholders forced a halt to that practice.

At the bottom, and perhaps the largest group, are those who did not cash out and whose companies were not among the winners. While many of them landed jobs at other companies, their wealth has vanished and some have lost their homes. Housing prices fell sharply after the options lost value, and have only recently begun to recover.

Some financial institutions were severely damaged when loans secured by stock options became uncollectible.

The inevitable jealousies reflect the seeming randomness of success and failure. There are tales of employees who did poor jobs but ended up rich, while their more competent and creative neighbors went bankrupt. Younger engineers are angry that they have no chance for the quick wealth their elders gained, and scornful of those who lost it.

Nationally, the effect on the economy has not been as great as was feared. While some other regions with big stakes in the Internet economy were hurt, most notably Seattle and New York City, the effect on most of the country was limited. Consumers cut back, but not by as much as was expected considering the declining value of investment portfolios. Growth since 2003 has been far higher than it was in Japan in the years after that country's bubble burst in 1990. In part, that was because American nontechnology stocks were not nearly as overvalued.

Investors have grown much more cautious. That is reflected in the diminished amount of capital available for start-ups, and in other ways as well. Even Microsoft, which became the world's most valuable company long before it paid its first dividend in 2004, now finds that it must raise its payout every year to attract investors.