Case Study on Investment Filters (Warren Buffett)

Transcript of http://www.youtube.com/watch?v=PnTm2F6kiRQ

Darden MBA (McIntyre) Value Investing Conference Video #5 November 11, 2008
Presentation by Alice Schroeder, Author of Snowball[1]

There had to be a Holy Grail with Warren E. Buffett *("WEB")*, because I *(Alice Shroeder)* had heard from so many investors a little bit of irritation—irritation might not be the right word--because *Warren* always says it is very simple. There are just a few simple principles, and if you were only working with a smaller amount of money *(a million dollars or less)* he could earn 50% returns a year.

Well, I have had a lot of people say to me, "Well, I am working with a smaller amount of money, if it is really that simple, why am I not earning 50% returns a year? So the question is...is it just because *Warren* Buffett is a genius? Is it just that we are all dumb? Or is the truth somewhere in between? And I think the truth is somewhere in between.

I was sure somewhere hiding in his office was the Holy Grail. In fact, though WEB is brilliant, and he is different from everybody else, there is something more to it because he does have a way of making the difficult look easy, and he also has a hard time under-standing or perhaps even admitting how hard he works.

It is sort of like asking a fish to describe water. And there are some concepts (habits) that are so ingrained, so embedded in him that he doesn't even understand them himself. They have been there for so long. For example, take the rule he follows about asset turnover. Quote: "No real investor likes to trade. It is never pleasant to depart forever from an old friend." That probably sounds something like what *Warren* would say or Ben Graham would say, but it is not. That is from a book called Bond Salesmanship.

Bond salesmanship - Hardcover (Jan 1, 1924) by *William W Townsend*, which *Warren* read when he was seven years old, and he asked for this book for Christmas by the way. Whenever he read a book as a child he usually read the books 4 or 5 times and memorized them. So some of these ideas have been so ingrained in him from an early age that it is hard to know whether they are innate or whether he invented them or whether he picked them up from sources like this when he was very young.

But he got a lot of reinforcement from a very early age. Now for those of us who didn't, the question is **what in *Warren*'s papers and mental files will help us be better investors even though we can't be the next Warren Buffett.** I did find some things but let's start reviewing four concepts that you hear over and over….that are the basics of value investing and they are:

1.) Intrinsic value and especially applying the Phil Fisher qualitative investing concepts to intrinsic value.

[1] http://www.randomhouse.com/bantamdell/snowball/

Common Stocks and Uncommon Profits and Other Writings (Wiley Investment Classics) (Paperback) by Philip A. Fisher (Author), Ken Fisher (Introduction) "This is among the most beloved investment books of all times, among the bestselling of classic investment books, and now forty-five years old..."

2.) Ignoring the Mr. Market Manic Depressive Behavior.

3.) Performance drag of too much turnover and too much diversification.

4.) Ben Graham margin of safety concept which arguably is the most important ever

developed in investing.

All of these are very important but when I (Alice Schroeder) studied and spent so much time with *Warren* Buffett, what I actually saw: he invests and applies his investing concepts but what he actually does is a little but different, so what I would like to do is take you on a bit of a journey using a specific investment that he made.

I did not write about it in the book because it was cut for length. It illustrates principles that I talk about in the book, but it shows how *Warren* thinks. The piece is a little bit too technical for the general reader to be put into the book, *Snowball*. But also, as an overview, so much of *Warren*'s success has come from training himself in good habits—and it is worth saying that because—he always says that the chains of habit are too light to be felt until they are too heavy to be broken. He is talking about bad habits, but it was ***Aristotle* who said we are what we repeatedly do. Excellence then, is not an act, but a habit.**

Warren is the creature of habit. He is the ultimate creature of habit. His first habit was hard work. I write over and over again in the book (*Snowball*) about the fact that he was at the Securities and Exchange Commission ("SEC") digging up documents before they were electronically available. He was down at the state insurance commission in the bowels of the basement looking up filings, He was knocking on the doors of businesses talking to the managements when they were saying you are a pest go away.

He was sending Dan Mohnan around the state to buy up shares of National American Insurance. He was always thinking and working. And a lot of his work was not obvious; it was not repetitive or routine. He was always' thinking, "What more can I do? **Especially what more can I do to get an edge on the other guy."**

Now importantly, I know a lot of people will point out there are a lot of things *Warren* did that you can't do these days because either the information is so available electronically that everybody has it or it is insider information that would be illegal to use.

But the principal of the hard work he did is still the same. I was talking to someone earlier and we were sort of talking in awe of how hard *Warren* Buffett worked and the fact that **most people would not work that obsessively.** But for those few who do work obsessively, there is a reward. **The main thing he worked at was learning.** The guy is—as Charlie Munger puts it—a learning machine.

And his learning has been cumulative. It has been a tremendous advantage to him in business. He has this mental file cabinet that has been built up starting when he was a very small child sitting in his stock broker father's office reading the financial statements and descriptions of thousands of businesses and dozens of industries over and over and over. This is really why when people call him with a business proposition he can say yes or no instantly because he has that file cabinet in his mind that is so deep. It does help to have a photographic or near photographic memory which he has, but at the same time, that learning is what makes him *Warren* Buffett.

The learning was cumulative. I think that is worth mentioning too. He has chosen a profession to learn in a field that the knowledge adds and builds on top of each other. And so I think we can all be better investors for knowing that.

Well, up to this point there is no great mystery to it for everyone who has read *Snowball* **how hard he has worked and how much learning he has done.** But there are three other factors to his success that I would like to talk about and focus a lit bit differently the normal way he explains investing…….and that is:

1. Handicapping,
2. Compounding and
3. The margin of safety.

These are three concepts that work together. He uses them in a slightly different way than he would think of describing them publicly. They are all discussed in the book. I would now like to take you through a little case study

Case Study: Mid-Continent Tab Card Company.

This was a private investment that he did in his personal portfolio. It shows you how I saw him invest based on his personal files and what he actually does. Then I will update that to the present day.

This company was an outgrowth of *IBM* and, as you all know, *Warren* did not use computers in the 1950s but he was very aware of them. *IBM* was the only computer company of any size or importance at that time. And *Warren*'s Aunt Katie and her Uncle Fred had decided to invest in *Control Data* which was a start up company that was going to compete with *IBM*. Katie's brother who was Bill Norris was founding Control Data because he wanted to create a business. He thought *IBM* was slow and bureaucratic. And *Warren* told Katie and Fred not to invest in Control Data. He said to them, "Don't do it." Who needs another computer company?

Those were his famous last words. They invested in *Control Data* anyway and they made a huge amount of money. And what was notable about this incident was that *Warren* told them not to invest because he actually knew a lot about *IBM* by studying *IBM.* He had been studying *IBM* since 1952; *IBM* had been in court embroiled in an anti-trust case for being a monopoly. *Warren* studied its financials and even though by then he had already declared *IBM* outside his circle of competence.

(Editor: It is interesting that he would study a company outside his circle of competence. Perhaps, he wished to be informed about an important company. Like studying Google (2011) today to understand its effect on the Media industry?)

He felt that even though *IBM* might have to broken up one day, that its monopoly was so overwhelming--and, of course, he likes monopoly businesses--that to compete with it would be futile. So what happened was that *IBM* did actually settle with the Justice Department. And as part of that settlement it was required to divest of a business making tab cards.

What is a tab card?

Before computer were digital, computers read off of punch cards. They were called Marke-Sense Cards, and these were big decks of cards with holes punched in them and they would be stuck in the computer, and they would be read mechanically through the computer.

Definition: A **punch card** or **punched card** (or **punch card** or **Hollerith card** or *IBM card*), is a piece of stiff paper that contains digital information represented by the presence or absence of holes in predefined positions. Now almost an obsolete recording medium, punched cards were widely used throughout the 19th century for controlling textile looms and in the late 19th and early 20th century for operating fairground organs and related instruments. It was used through the 20th century in unit record machines for input, processing, and data storage. Early digital computers used punched cards as the primary medium for input of both computer programs and data, with offline data entry on key punch machines. Some voting machines use punched cards.

This company was formed because *IBM* had to divest of this business; it was an incredibly profitable business. In fact, because these cards were trivial because of the mainframe computers that *IBM* sold, it marked the cards up to earn a 50% profit margin. This was *IBM*'s most profitable business.

So when *Wayne Ace* and *Warren Cleary* who were two friends of *Warren*'s saw that *IBM* was going to have to divest in this business, and they thought, "We are going to buy a Carroll Press which was a press that makes these cards. And we are going to compete with *IBM* because we are based in the Mid West, we can ship faster. We can provide better service. And they went to *Warren* and they said, "Should we invest in this company and would you come in with us? And *Warren* said, "No."

Well, why did he say no? He didn't say no because it was a technology company. He said no because he went through the first step in his investing process. This is where I think what he does is very automatic but it isn't well understood. **He acted like a horse handicapper.** The first stop in *Warren*'s investing process is always to say, "**What are the odds that this business could be subject to any type of catastrophe risk—that could make it (the business) fail?** And if there is any chance that any significant part of his capital would be subject to catastrophe risk, he just stops thinking. NO. He just won't go there.

It is backwards the way most people think because most people find an interesting idea and figure out the math, they look at the financials, they do a project and then at the end, the ask, "What could go wrong?"

Warren starts with what could go wrong and here he thought that a start-up business competing with *IBM* can fail. Nope, pass, sorry. And he didn't think anymore about it. But Wayne and Cleary went ahead anyway and within a year they were printing 35 million tab cards a month. At that point, they knew they had to buy more Carroll Presses so they came back to *Warren* and said, we need money—would you like to come in?

So now, *Warren* is interested because the catastrophe risk is gone. They are competing successfully against *IBM*. So he asks them the numbers, and they explain to him that they are turning their capital over 7 times a year. A Carroll Press costs $78,000 dollars and every time they run a set of cards through and turn their capital over, they are making over $11,000. So basically their gross profit on a press (7 x $11,000 = $77,000) is enough to buy another printing press. At this point Warren is very interested because their net profit margins are 40%. It is one of the most profitable businesses he has ever had the opportunity to invest in.

Notably people are now bringing *Warren* special deals to invest in—it is 1959. He has been in business for 2.5 years running the partnership. Why are they doing that? It is not because he is a great stock picker. They don't know that. He hasn't yet made that record. **It is because he knows so much about business, and he started so early he has a lot of money.** So this is something interesting about Warren Buffett—people were bringing him special deals like they are today with *Goldman Sachs* and *GE*.

He decided to come in and invest in the *Mid-Continent Tab Company* but, interestingly, he did not take *Wayne* and *John's* word for it because the numbers they gave him were very enticing. But, again, he went through, and he acted like a horse handicapper.

Now here is another point of departure. **Everyone that I know or knew as an analyst would have created a model for this company and projected out its earnings or looked at its return on investment in the future.**

Warren didn't do that. In going through hundreds of his files, **I never saw anything that looked like a model.** What he did is he did what you would do with a horse….**he figured out the one or two factors that determined the success of the investment.** In this case, it was the cost advantage that had to continue for the investment to work. And then he took all the historical data, quarter by quarter for every single plant and he obtained similar information as best he could from every competitor they had, and he filled several pages with little hen scratches with all this information and then he studied that information.

Then he made a yes/no decision. He looked at—they were getting 36% margins, they were growing over 70% a year on a $1 million of sales—so those were the historical numbers. He looked at them in great detail like a horse handicapper would studying the races and then he said to himself, "I want a 15% return on $2 million of sales and said, Yes, I can get that." Then he came in as an investor.

OK, what he did was he incorporated his whole earnings model and compounding (discounted cash flow or DCF) into that one sentence. He wanted 15% on $2 million of sales (a doubling from $1 million current sales). Why does he choose 15%? Warren is not greedy, he always wants 15% day one return on investment, and then it compounds from there. That is all he has ever wanted and he is happy with that. …You are not laughing, what's wrong? *(Laughs)*

It is a very simple thing, nothing fancy about it. And that is another important lesson because he is a very simple guy. He doesn't do any DCF models or any thing like that. He has said for decades, "I want a 15% day one return on my capital and I want it to grow from there-ta da! The $2 million of sales was pretty simple too. It had a million in sales already and it was growing at 70% so there was a big margin of safety built into those numbers.

It had a 36% profit margin—he said I would take half that or 18%. And he ended up putting in $60,000 of his personal, non-partnership money which was 20% of his net worth at that time. He got 16% of the company's stock plus some subordinated notes. And the way he thought about it was really simple. It was a one step decision. He looked at historical data and he had this generic return that he wants on everything. It was a very easy decision for him. **He relied totally on historical figures with no projections.**

I think that is a really interesting way to look at it because I saw him do it over and over again in different investments.

So what happened? Well? The company changed its name to *Data Documents*, and he owned it for 18 years. And he ended up putting another $1 million dollars into it over that time. It was bought out in 1979 by *Dictograph*, and he earned 33% compounded return over the time period he owned the investment (18 years CAGR—excluding additional capital--$60,000 would compound to $1.18 million) so it was not too bad.

That was typical. I gave you this example because it was the other time besides GEICO that he got a Phil Fisher-type growth company at a Ben Graham-like price. It was the most vivid example that I found, but it was a private investment and there is not a lot of public information about it available.

So, fast forwarding a little bit, why he thinks so much about catastrophe risk? Firestone's law where he said, "Chicken Little only had to be right once." And that is always the first thing that *Warren* thinks about. So why is Berkshire Hathaway today not dealing with some of the problems that other people are? It is because *Warren* passed on investing on a lot of things that he could have because the first question he always asks is, **"What is the catastrophe risk?"** And if the business or investment has catastrophe risk, he just says no.

You could probably get into an interesting discussion on stocks like *AIG*. That was a stock I was wrong on that for a long time until I finally turned around. He never invested in *AIG* because of the Catastrophe Risk. People brought him *Bear Stearns* or *Lehman Brothers*, and he turned them down. **He saved himself a lot of trouble, time and energy this way.** If you ask yourself the catastrophe risk question first before all the historical data, you will save yourself a lot of time and tears.

Because Warren is focused on efficiency, that is why he does that, and he is also very good at being realistic. And once he figures that something has the catastrophe ("Cat") risk, he passes or never tries to change himself out of making that decision.

So today when you think about what is happening now (November 2008) like deals going on right now like *Citigroup, Goldman Sachs* people are still bringing him special deals that no one else can get, and he still is making sure that they do not have the cat risk as best he can. He is making a bet on management and his reputation as an investor—to some extent--can help these deals. They are giving him 10% guaranteed return—that is the minimum--on these deals. He still wants the 15%. At times, he has taken less and lowered his standards and he usually has been sorry when he has.

When it comes to the market as a whole, he uses somewhat the same technique. He recently said that he finds the stock market attractive now. In his 1999 Sun Valley speech (See Appendix for article) he talked about investing in the market when the stock market's value was between 70% and 80% of GDP. It is somewhat the same method because at that level, obviously the stock market is not going to zero and he has a huge margin of safety built into that, just as the 15% return and $2 million included a huge margin of safety given how fast Mid-Continental Tab Company was actually growing and the margins it was actually getting. And so he has put his margin of safety into return expectations.

He is using only historical data and he uses years and years of that data to arrive at the conclusion that, again, probabilities—he is handicapping—that it is the right price to buy. He doesn't care if it (the market) goes up and down in price for the next two or three years. He just knows that at this price, he will do well over time.

I do think that it is really amazing that three weeks later there are pundits out there that the greatest living investor of our time and possibly ever is wrong for having made these investments and having predicted that the stock market is a buy right now. It is really ironic and interesting that somebody who has never been wrong in making a prediction and that the people who have been wrong in the past making predictions once again are saying he is wrong.

Since we are talking about this handicapping concept, this is just a little quote from the Intelligent Investor that the margin of safety is always dependent upon the price paid. If, as we suggest, the average price level for most growth stocks is too high to provide a margin of safety for the buyer, then this simple technique of diversified buying may not work satisfactorily. That obviously applies to the market as a whole.

One thing that I think Warren Buffett should get a lot of credit for and a round of applause for is that he never, ever advocated dollar-cost averaging because it is wrong. The concept has led many people off a cliff. It is not right to buy the market at any price. And you have never heard him suggest that anyone should do it. I think he should get a lot of credit for that.

In the end, thank you for listening to this story, and I hope it gives you a little insight into how he thinks. It is also indefinable. There are certain things about him that will always be a mystery and never be explainable. And there is one thing you can emulate but only if it comes from the right place inside you. It has been said—and this came early to Warren--**that the only person who is really qualified to advise you as to what you can do is yourself.** He (Buffett) calls this your inner scorecard. You know yourself better than anyone. You, and you alone, know how determined you are to make something a success of any undertaking. And in the last analysis, 90% of being successful in business is that indefinable thing, which for lack of a better name we call GUTS. That quote is from a book called a 1000 ways to make a $1,000.

Thank you.

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Below is further commentary on the Case Study from someone who attended.

I attended the talk at UVA and have a couple comments to share that were not part of the transcript.

During the Q&A someone asked again about the kind of analysis that Buffett performed on investments.

Schroeder said that if Buffet were to have done a spreadsheet on Mid Continent Tab Card Company, the column headings would be Sales, Margin, Profit, plant by plant, quarter by quarter (for the rows). All historical data, no future projections. Basically, they earn this and I want that (his 15% return). **She emphasized that the purpose of a margin of safety is to render a forecast unnecessary.**

Later in the evening I had a chance to speak with Schroeder, and asked what she learned as an investor from Buffett—remember that Schroeder was a well regarded P&C analyst and no slouch to begin with. She told me that the number of investments he passed on left an impression on her. She went on to say that if he were investing in a steel company he would have read about fifty companies in the industry in depth. He was the true expert where he invested.

***McIntire and Darden Co-Host Value Investing Conference**

November 11, 2008 — What's the best asset to own now? Will today's financial turmoil force hedge funds out of the market, or fundamentally alter the processes by which hedge fund managers make investment decisions? Will *Warren* Buffett serve as Secretary of the Treasury in the Obama administration?

These were just a few of the questions pondered by a group of 25 investment professionals during two days of presentations and panel discussions at the University of Virginia's inaugural "Value Investing Conference," hosted by the **McIntire School of Commerce** and the **Darden School of Business**. The free, public conference was held Thursday and Friday at Charlottesville's Paramount Theater and the Darden School's Abbott Center Auditorium.

"The mission of the Value Investing Conference is to assemble the investing public, professional investors, scholars and students in the field of value investing for the purpose of highlighting and disseminating best practices, honoring best practitioners and revealing new trends and developments in the field," said Darden Dean Robert Bruner, noting that he expects the conference to become an annual event.

"Value investing," an investment paradigm pioneered by Benjamin Graham in the late 1920s — and perfected by Charlie Munger and Buffett over the last half-century — involves buying securities whose shares appear to be underpriced according to the metrics of various methods of fundamental analysis.

The conference was dominated by discussion of the current financial crisis, and opened with a panel discussion of the crisis's implications for investors, value investing and the hedge fund industry.

Commenting on current conditions, the six panelists — Christopher Brightman, chief executive officer of the University of Virginia Investment Management Company, or UVIMCO; Rich Evans, assistant professor of business administration at Darden; 1985 Mcintire alumnus John Griffin, founder and trustee of Blue Ridge Capital; 1979 Darden alumnus John Macfarlane, chief operating officer of Tudor Investment Corporation; 1964 College graduate and 1968 Darden graduate Dick Mayo, chairman of Mayo Capital Partners; and Ken Shubin Stein, founder of Spencer Capital Management — agreed that the scope, magnitude and complexity of today's situation have created an environment of enormous and unprecedented uncertainty.

"We've been running a macroeconomic experiment for the past two decades," Shubin Stein said, "and there are so many variables involved, it's impossible to know what's happening."

But Griffin, who stated that he too has "no idea" what is currently going on, argued that by constructing a fundamentally sound portfolio, guided by consistent, sound principles and thorough, rational analysis, crisis can be averted.

"You build your ark during sunny days for times like this," Griffin said.

Griffin also warned against what he termed "reversion to the mean syndrome" — that is, the tendency to believe — and to bet — on the idea that things will revert to the mean.

"There's nothing in life that says that things have to revert to the mean," Griffin said. "The future is uncertain."

Nevertheless, experts on other panels sought to examine subjects characterized by somewhat more certainty (at least for the moment), including where value can currently be found around the globe; the consistently strong relationship between sound management and successful investment; how to find value in underexplored asset classes; and the cognitive biases that invariably cause investors to make bad decisions.

"Our goal in organizing this conference was not to provide our audience with predictions for the future, but rather to provide them with some insight into to the art of value investing, as practiced by some of today's most successful investors," said conference organizer David C. Smith, associate professor of finance at the McIntire School and director of McIntire's Center for Financial Innovation. "We wanted to demonstrate to our audience that well-allocated capital can act as an engine of prosperity, regardless of economic conditions."

The conference's opening night also featured a presentation by Alice Schroeder, author of "The Snowball: *Warren* Buffett and the Business of Life," currently Amazon.com's best-selling business book and the only authorized biography of the legendary value investor.

Schroeder detailed for the audience Buffett's near-photographic memory for financial statements and information, remarkable ability to identify the odds of catastrophic risk in any potential investment, extraordinary work ethic and devilishly simple investment philosophy. (Schroeder also commented, in response to an audience member's question, that Buffett would "definitely not" be interested in serving as the new Secretary of the Treasury.)

Conference attendees also heard from Whitney Tilson, winner of the 2008 "Navigator of the Year" Award, given annually to an investment professional who, through his or her gifts of time and capital, has improved society and motivated others to serve. Tilson, the founder and managing partner of T2 Partners LLC, reminded the audience that wealth is uncorrelated with happiness and that real happiness comes from helping others.

"Clearly, the inaugural Value Investing Conference was a tremendous success," said McIntire Dean Carl Zeithaml. "We are extremely pleased to host such an outstanding group of investment professionals to discuss topics of such vital interest, timeliness and importance, and we look forward to hosting the Value Investing Conference next year in McIntire's state-of-the-art new home in Rouss & Robertson Halls."

To see the full agenda of the Value Investing Conference and to read about conference participants, go to **www.darden.edu/vic/**.

Comments/Thoughts

Enormous evidence shows that investors are hopeless at forecasting yet it remains a core part of their investing process. Buffett avoids forecasting the unknown. Also, by simplifying his decision making, Buffett avoids swamping himself with unnecessary information and having to make more decisions. More decisions will lead to more errors.

As A Review

Buffett took three (3) main principles from Benjamin Graham

A stock is the right to own a little piece of a business. A stock is worth a certain fraction of what you would be willing to pay for the whole business.

Use a Margin of Safety. Investing is built on estimates and uncertainty. A wide margin of safety ensures that the effects of good decisions are not wiped out by errors. A wide enough margin of safety makes forecasting irrelevant. The way to advance, above all, is not be retreating.

Mr. Market is your servant, not your master. Graham postulated a moody character called Mr. Market, who offers to buy and sell stocks every day, often at prices that don't make sense. Mr. Market's moods should not influence your view of price. However, from time to time he does offer the chance to buy low and sell high.

APPENDIX

Buffett Offers an Opinion on the Over Valuation of the NASDAQ During July 1999

(From the book, The Snowball by Alice Schroeder), pages 16-23.

Buffett's Speech at the *Allen & Company Sun Valley Conference* on July 1999.

I would like to talk about the stock market, he *(Buffett)* said. I will be talking about pricing stocks, but I will not be talking about predicting their course of action next month or next year. **Valuing is not the same as predicting.**

"In the short run, the market is a voting machine. In the long run, it is a weighing machine. Weight counts eventually. But votes count in the short term. And it is a very undemocratic way of voting. Unfortunately, they have no literacy tests in terms of voting qualification, as you have all learned."

Dow Jones Industrial Average	
December 31, 1964	874.12
December 31, 1981	875.00

During these 17 years, the size of the economy grew more than fivefold. The sales of the *Fortune Five Hundred* companies grew more than fivefold.[2] Yet, during these seventeen years, the stock market went exactly nowhere."

He backed up a step or two. "What you are doing when you invest is deferring consumption and laying money out now to get more money back at a later time. And there are really only two questions. One is how much you are going to get back and the other if when.

Now. *Aesop* was not much of a finance major, because he said something like, 'A bird in hand is worth two in the bush.' But he doesn't say when." They are to finance as gravity is to physics. As interest rates vary, the value of all financial assets—houses, stocks, bonds—changes, as if the price of birds had fluctuated. "And that is why sometimes a bird in the hand is better than two birds in the bush and sometimes two in the bush are better than one in the hand."

Buffett related *Aesop* to the great bull market of 1990s, which he described as baloney. Profits had grown much less than in that previous period, but birds in the bush were expensive because interest rates were low. Fewer people wanted cash –the bird in the hand—at such low rates. So investors were paying unheard of price for those birds in the bush. Casually, Buffett referred to this as the "greed factor."

Buffett continued, "There were only three ways the stock market could keep raising at ten percent or more a year. One was if interest rates fell and remained below historic levels. The second was if the share of the economy that went to investors, as opposed to employees and government and other thing, rose above its already historically high level."[3] Or, he said, the economy could start growing faster than normal.[4] He called it "wishful thinking" to use optimistic assumptions like these. Some people, he said, were not thinking that the whole market would flourish. They just believed they could pick the winners from the rest. Swinging his arms like an orchestra conductor, he succeeded in putting up another slide while explaining that, although innovation might lift the world out of poverty, people who invest in innovation historically have not been glad afterward.

This is half of a page which comes from a list seventy pages long of all the auto companies in the United States." He waved the complete list in the air.[5] "There were two thousand auto companies: the most important invention, probably, of the first half of the twentieth century. It had enormous impact on people's lives. If you had seen at the time of the first car how this country would develop in connection with autos you would have said, 'This is the place I must be.'

[2] Fortune magazine ranks the largest 500 companies based on sales and refers to them as the Fortune 500." This group of companies can be used as a rough proxy for U.S. –based business.

[3] Corporate profits at the time were more than 6% of GDP, compared to a long-term average of 4.88%. They have since risen to over 9%, far above \ historic levels.

[4] Over long periods the U.S. economy has grown at a real rate of 3% and a nominal rate (after inflation) of 5%. Other than a postwar boom or recovery from severe recession, this level is rarely exceeded.

[5] Some of the Auto companies operating in 1903 were Electric Vehicle Company, The Winton Motor Carriage Company, Packard Motor Car company, Olds Motor Works, Knox Automobile Company, The Peerless Motor Car Co., Waltham Manufacturing Co., Berg Automobile Co., Cadillac Automobile Co., Buffalo Gasoline Motor Co. , etc.

But of the two thousand companies, as of a few years ago, only three car companies survived. And, at one time or the other, all three were selling for less than book value, which is the amount of money that had been put into the companies and left there. So autos had an enormous impact on America, but in the opposite direction on investors." Below is a chart of *General Motors (GM), Ford (F)* and the *DJIA*. Note the massive under-performance of *Ford* and *GM* as compared to the *DJIA*.

But, sometimes it is much easier to figure out the losers. There was, I think, one obvious decision back then. And of course, the thing you should have been doing was shorting horses."

U.S. Horse Population	
1900	17 million
1998	5 million

"Frankly, I'm kind of disappointed that the Buffett family was not shorting horses throughout this entire period. There are always losers."

Spotting the losers is easier than spotting the winners. In fact, the losers from technological change are much easier to spot than the winners. Losing technologies often have a barrier that proves clearly insurmountable in their quest to react to their new competitors. Canals, for example, simply could not achieve the speed of throughput that railways could. The telephone allowed voice transmission, the telegraph did not. The digital computer provided greater accuracy and speed than any analog equivalent could achieve. *(Source: Engines that Move Markets by Alasdair Nairn.)*

Now the other great invention of the first half of the century was the airplane. In this period from 1919 to 1939, there were about two hundred companies. Imagine if you could have seen the future of the airline industry back there at *Kitty Hawk*. You would have seen a world undreamed of. But assume you had the insight, and you saw all of these people wishing to fly and to visit their relatives of run away from their relatives or whatever you do in an airplane, and you decided this was the place to be.

As of a couple of years ago, there had been zero money made from the aggregate of all stock investments in the airline industry in history. (Insert 1990 and 2008 charts)

"So I submit to you: I really like to think that if I had been down there at *Kitty Hawk*, I would have been farsighted enough and public spirited enough to have shot *Orville* down. I owed it to future capitalists."

A short financial history of the automobile from Engines That Move Markets: Technology Investing from Railroad to the Internet and Beyond by Alasdair Nairn.

The losers from the old technology *(Horse-drawn carriages and buggy whip manufacturers)* were fairly easy to spot, but selection of which companies would prove the winners was much more difficult. Literally hundreds of companies sprang up, many of them genuine competitors, some of them effectively stock market scams. For the outsider, there was little to distinguish between the genuine and the fake, let alone which of the genuine companies would succeed.

Even the companies that did eventually succeed did so only after a rocky road. Henry Ford was successful only on his third corporate attempt and only after splitting with his partners over the strategic direction of the company. *General Motors* had to be rescued twice, and *Chrysler* was effectively a company resuscitated from previous misfortune. Furthermore, it was only with the introduction of the *Ford Model T* and its impact in bringing the automobile within the range of the affluent middle classes that the market emerged as a strong growth one. From that point forward, automobile production became an expanding market, but with a price point that was being continually lowered. Those who could not compete were forced to exit, in many cases moving in a very short period from a position of profitability and apparent stability to liquidation.

Despite the growth in demand and production, the car industry was to consolidate from the early part of the century onward. There were many forces driving this, but principle among them were the initially fragile financial base of the majority of companies and the greater capital required for increased production volume and distribution. While production in the early years had concentrated on high-cost, high-margin vehicles, as the technology improved and the car became a product also for the middle classes, the production process itself grew in importance. The economies to be gained from mass production militated against a large number of producers, and the industry began an inexorable move toward consolidation.

The consolidation phase that began early, during the phases of high top-line growth, was to continue in the industry from that point forward. The initial very high returns on capital for the fortunate few gradually reduced, even as the consolidation took place and the rate of growth in net income for the participants was on a downward path almost from the 1920s until the 1970s when, in real terms, profits followed the classic boom-and-bust cycle of a highly capital-intensive and competitive industry. In the early years, the American manufacturers undoubtedly gained from the poor road conditions that forced the production of a more lightweight and standardized vehicle than their more technologically advanced European counterparts. In a domestic economy growing strongly and protected by tariffs, the producers took full advantage to become the major players in the world industry.
On both sides of the Atlantic, the investor was faced with the same issues, selecting a small number of survivors from the larger number of initial competitors. Growth alone was not sufficient to underpin an investment. Returns may have been potentially very strong, but, given the downside, they needed to be. Equally, the investor needed to pay close attention to the profitability of the industry since top-line growth alone proved no guarantee of income growth. *The car industry faced the burden of high capital costs along with low barriers to entry.*

"It's much easier to promote an esoteric product, even particularly one with losses, because there is no quantitative guideline. But people will keep coming back to invest, you know. It reminds me a little of that story of the oil prospector who died and went to heaven. And *St Peter* said, "Well, I checked you out, and you meet all of the qualifications. But there is one problem.' He said, 'We have some tough zoning laws up here, and we keep all of the oil prospectors over in that pen. And as you can see, it is absolutely chuck-full. There is no room for you.'

"And the prospector said, 'Do you mind if I just say four words?'

"*St. Peter* said, 'No harm in that.'

So the prospector cupped his hands and yells out, 'Oil discovered in hell!'
"And of course, the lock comes off the cage and all of the prospectors start heading right straight down.

"St. Peter said, 'That is a pretty slick trick. So', He says, 'go on in, and make yourself at home. You have all the room in the world.'

"The prospector paused for a minute, then said, 'No, I think I will go along with the rest of the buys. There might be some truth to that rumor after all.'

Well, that is the way people feel with stocks. It is very easy to believe that there is some truth to that rumor after all."

This got a mild laugh for a half second, which choked off as soon as the audience caught on to *Buffett's* point, which was that, like the prospectors, they might be mindless enough to follow rumors and drill for oil in hell.

He closed by returning to the proverbial bird in the bush. There was no new paradigm, he said. **Ultimately, the value of the stock market could only reflect the output of the economy.**

He put up a slide to illustrate how, for several years the market's valuation had outstripped the economy's growth by an enormous degree. This meant, Buffett said, that the next seventeen years might not look much better than that long stretch from 1964 to 1981 when the Dow had gone exactly nowhere—that is, unless the market plummeted. "If I had to pick the most probable return over that period, he said, "it would probably be six (6%) percent. Yet a recent *Paine-Webber-Gallup* poll had shown that investors expected stocks to return thirteen to twenty-two percent.

He walked over to the screen, waggling his bushy eyebrows, he gestured at the cartoon of a naked man and woman, taken from the legendary book on the stock market, Where Are The Customers' Yachts? "The man said to the woman, 'There are certain things that cannot be adequately explained to a virgin either by words or pictures.'"

The audience took his point, which was that people who bought Internet stocks were about to get screwed. They sat in stony silence. Nobody laughed. Nobody chuckled or snickered or guffawed.

Seeming not to notice, *Buffett* moved back to podium and told the audience about the goody bag he had brought for them from *Berkshire Hathaway*. "I just bought a company that sells fractional jets, *Netjets*," he said. "I thought about giving each of you a quarter share of a *Gulfstream IV*. But when I went to the airport, I realized that would be a step down for most of you." At that, they laughed. So, he continued, he was giving each of them a jeweler's loupe instead, which he said they should use to look at one another's wives' rings—the third wives' especially.

That hit its mark. The audience laughed and applauded. Then they stopped.

A resentful undercurrent was washing trough the room. Sermonizing on the stock market's excesses at Sun Valley in 1999 was like preaching chastity in a house of ill repute. The speech might rivet the audience to its chairs, but that didn't mean that they would go forth and abstain.

Buffett waved a book in the air. "This book was the intellectual underpinning of the 1929 stock-market mania. *Edgar Lawrence Smith's* Common Stocks as Long-Term Investments proved that stocks always yielded more than bonds. Smith identified five reasons, but the most novel of these was the fact that companies retained some of their earnings, which they could reinvest at the same rate of return. That was the plowback—a novel idea in 1924! But as my mentor, *Ben Graham*, always used to say, 'You can get in way more trouble with a good idea than a bad idea,' because you forget that the good idea has limits. *Lord Keynes*, in his preface to this book, said, 'There is a danger of expecting the results of the future to be predicted from the past.'"

He had worked his way back around to the same subject: that one couldn't extrapolate from the past few years of accelerating stock prices. "Now, is there anyone I haven't insulted" He paused. The question was rhetorical; nobody raised a hand.

"Thank you," he said, and ended.

"Praise by name, criticize by category" was *Buffett's* rule. The speech was meant to be provocative, not off-putting—for he cared a great deal what they thought of him. He named no culprits, and he assumed they would get over his jokes. His argument was so powerful, almost unassailable, that he thought even those who didn't like its message must acknowledge its force. And whatever unease the audience felt was not expressed aloud. He answered question until the session ended.

Many believed that *Buffett* was rationalizing having missed the technology boom, and they were startled to see him make such specific predictions, prophecies that surely would turn out to be wrong. Beyond his earshot, the rumbling went on: "*Good ol' Warren*. He missed the boat. How could he miss the tech boat? He is a friend of *Bill Gates.*

End
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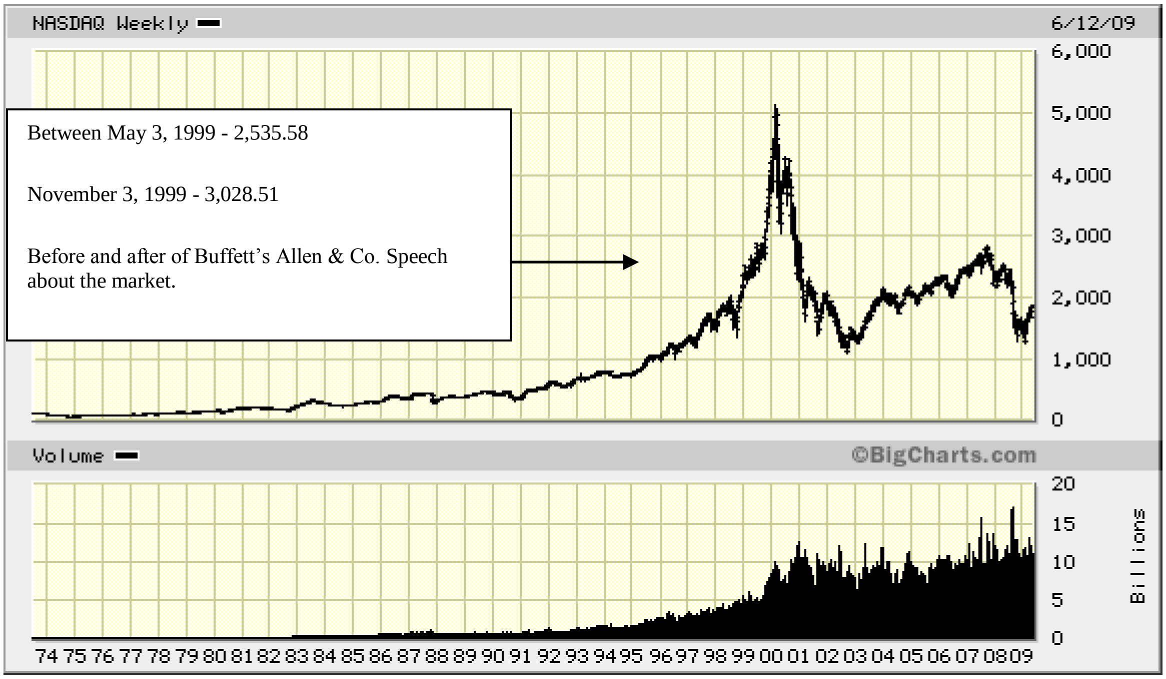
Editor's Comments

When *NASDAQ* market prices proceeded to almost double within 8 months of Buffett's *Sun Valley Speech*, nay-sayers had a field day. They probably thought that *Mr. Buffett* was washed up, a has-been, and he just "Didn't get 'it.'"

What critics didn't realize was that *Buffett* was not predicting prices, but simple cause and effect. If prices were unsustainable, then prices would eventually revert to their mean and come back to earth. The exact timing of when this would occur--no one knows, but knowing that prices will revert is critical to understanding and avoiding risk of permanent capital loss.

In December 27, 1999 Barron's Magazine printed a headline, "What's Wrong Warren? Berkshire is Down for the Year But Don't Count It Out." His methods of investing were extremely out of fashion and against the grain in the dot-com explosion of the late 1990s. The year 1999 was *Buffett's* first down year in a decade, with *Berkshire's* per-share book value under-performing the *S&P 500* index for the first time in 20 years. At the time, the judgmental pronounced his insistence on investing in firmly established, proven businesses out of date for the much-heralded, dot-com-heavy new economy. In 2000 however, *Buffett* appeared to have the last laugh, as reality weighed down the dot-com mania and the high-tech stock bubble burst. Buffett's portfolio, meanwhile, bounced back as investors ran to established companies, and once again pundits and analysts were praising the far-sighted wisdom of *Buffett.*

Through it all, *Buffett* never wavered nor questioned himself, because he operates with his own inner score card. He was neither right nor wrong because others agreed or disagreed with him, but because his facts and reasoning were correct.


NASDAQ Weekly
6/12/09
6,000
5,000
4,000
3,000
2,000
1,000
0
Between May 3, 1999 - 2,535.58
November 3, 1999 - 3,028.51
Before and after of Buffett's Allen & Co. Speech about the market.
Volume
©BigCharts.com
20
15
10
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Billions
74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09

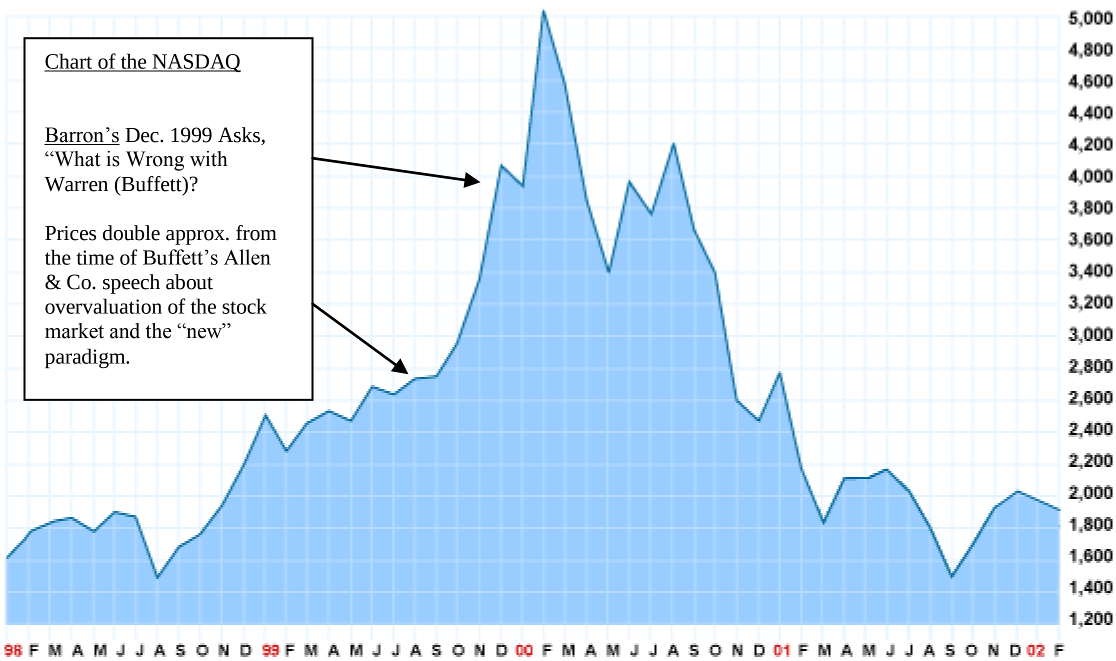
Chart of the NASDAQ
Barron's Dec. 1999 Asks, "What is Wrong with Warren (Buffett)?
Prices double approx. from the time of Buffett's Allen & Co. speech about overvaluation of the stock market and the "new" paradigm.
5,000
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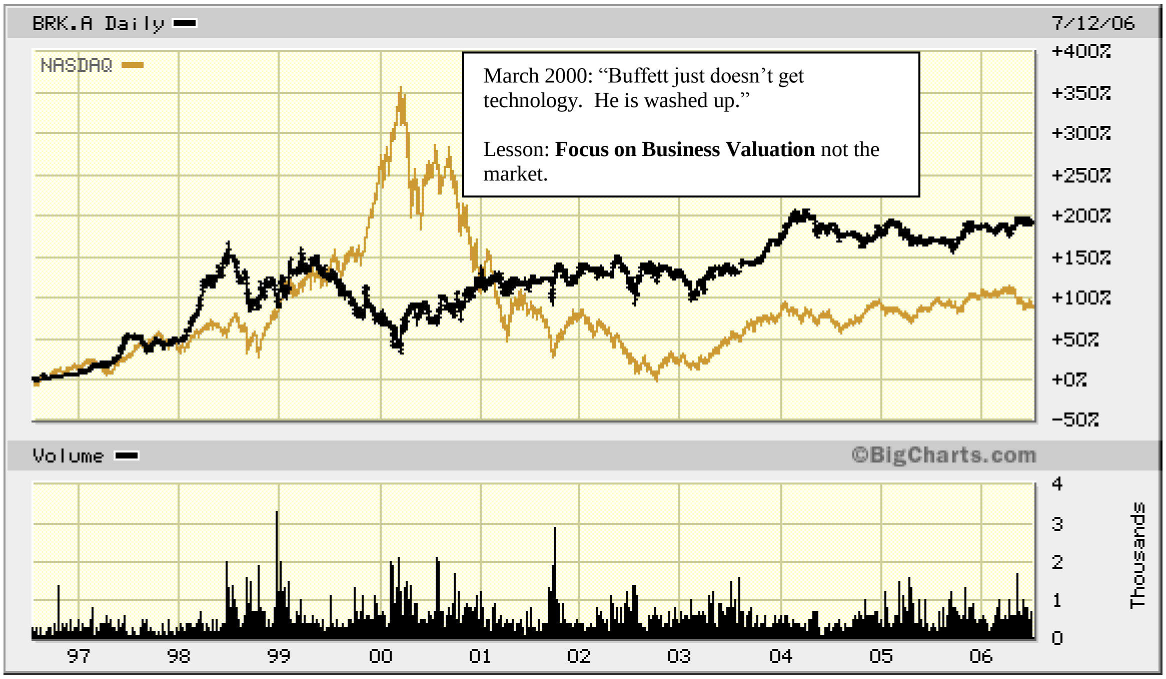

Mr. Buffett on the Stock Market
FORTUNE Monday, November 22, 1999 By Warren Buffett

Warren Buffett, chairman of *Berkshire Hathaway*, almost never talks publicly about the general level of stock prices--neither in his famed annual report nor at *Berkshire's* thronged annual meetings nor in the rare speeches he gives. But in the past few months, on four occasions, Buffett did step up to that subject, laying out his opinions, in ways both analytical and creative, about the long-term future for stocks. FORTUNE's *Carol Loomis* heard the last of those talks, given in September to a group of *Buffett's* friends (of whom she is one), and also watched a videotape of the first speech, given in July at *Allen & Co.'s* Sun Valley, Idaho, bash for business leaders. From those extemporaneous talks (the first made with the *Dow Jones Industrial Average* at 11,194), Loomis distilled the following account of what *Buffett* said. *Buffett* reviewed it and weighed in with some clarifications.

Investors in stocks these days are expecting far too much, and I'm going to explain why. That will inevitably set me to talking about the general stock market, a subject I'm usually unwilling to discuss. But I want to make one thing clear going in: Though I will be talking about the level of the market, I will not be predicting its next moves. At *Berkshire* we focus almost exclusively on the valuations of individual companies, looking only to a very limited extent at the valuation of the overall market. Even then, valuing the market has nothing to do with where it's going to go next week or next month or next year, a line of thought we never get into. **The fact is that markets behave in ways, sometimes for a very long stretch, that are not linked to value.** Sooner or later, though, value counts. So what I am going to be saying--assuming it's correct--will have implications for the long-term results to be realized by American stockholders.

Let's start by defining 'investing.' The definition is simple but often forgotten: Investing is laying out money now to get more money back in the future--more money in real terms, after taking inflation into account.

Now, to get some historical perspective, let's look back at the 34 years before this one--and here we are going to see an almost Biblical kind of symmetry, in the sense of lean years and fat years--to observe what happened in the stock market. Take, to begin with, the first 17 years of the period, from the end of 1964 through 1981. Here's what took place in that interval:

DOW JONES INDUSTRIAL AVERAGE Dec. 31, 1964: 874.12 Dec. 31, 1981: 875.00

Now I'm known as a long-term investor and a patient guy, but that is not my idea of a big move.

And here's a major and very opposite fact: During that same 17 years, the GDP of the U.S.--that is, the business being done in this country--almost quintupled, rising by 370%. Or, if we look at another measure, the sales of the FORTUNE 500 (a changing mix of companies, of course) more than sextupled. And yet the Dow went exactly nowhere.

To understand why that happened, we need first to look at one of the two important variables that affect investment results: interest rates. These act on financial valuations the way gravity acts on matter: The higher the rate, the greater the downward pull. That's because the rates of return that investors need from any kind of investment are directly tied to the risk-free rate that they can earn from government securities. So if the government rate rises, the prices of all other investments must adjust downward, to a level that brings their expected rates of return into line. Conversely, if government interest rates fall, the move pushes the prices of all other investments upward. The basic proposition is this: What an investor should pay today for a dollar to be received tomorrow can only be determined by first looking at the risk-free interest rate.

Consequently, every time the risk-free rate moves by one basis point--by 0.01%--the value of every investment in the country changes. People can see this easily in the case of bonds, whose value is normally affected only by interest rates. In the case of equities or real estate or farms or whatever, other very important variables are almost always at work, and that means the effect of interest rate changes is usually obscured. Nonetheless, the effect--like the invisible pull of gravity--is constantly there.

In the 1964-81 period, there was a tremendous increase in the rates on long-term government bonds, which moved from just over 4% at year-end 1964 to more than 15% by late 1981. That rise in rates had a huge depressing effect on the value of all investments, but the one we noticed, of course, was the price of equities. So there--in that tripling of the gravitational pull of interest rates--lies the major explanation of why tremendous growth in the economy was accompanied by a stock market going nowhere.

Then, in the early 1980s, the situation reversed itself. You will remember *Paul Volcker* coming in as chairman of the Fed and remember also how unpopular he was. But the heroic things he did--his taking a two-by-four to the economy and breaking the back of inflation--caused the interest rate trend to reverse, with some rather spectacular results. Let's say you put $1 million into the 14% 30-year U.S. bond issued Nov. 16, 1981, and reinvested the coupons. That is, every time you got an interest payment, you used it to buy more of that same bond. At the end of 1998, with long-term governments by then selling at 5%, you would have had $8,181,219 and would have earned an annual return of more than 13%.

That 13% annual return is better than stocks have done in a great many 17-year periods in history--in most 17-year periods, in fact. It was a helluva result, and from none other than a stodgy bond.

The power of interest rates had the effect of pushing up equities as well, though other things that we will get to pushed additionally. And so here's what equities did in that same 17 years: If you'd invested $1 million in the Dow on Nov. 16, 1981, and reinvested all dividends, you'd have had $19,720,112 on Dec. 31, 1998. And your annual return would have been 19%.

The increase in equity values since 1981 beats anything you can find in history. This increase even surpasses what you would have realized if you'd bought stocks in 1932, at their Depression bottom--on its lowest day, July 8, 1932, the *Dow* closed at 41.22--and held them for 17 years.

The second thing bearing on stock prices during this 17 years was after-tax corporate profits, which this chart [above] displays as a percentage of GDP. In effect, what this chart tells you is what portion of the GDP ended up every year with the shareholders of American business.

The chart, as you will see, starts in 1929. I'm quite fond of 1929, since that's when it all began for me. My dad was a stock salesman at the time, and after the Crash came, in the fall, he was afraid to call anyone--all those people who'd been burned. So he just stayed home in the afternoons. And there wasn't television then. Soooo... I was conceived on or about Nov. 30, 1929 (and born nine months later, on Aug. 30, 1930), and I've forever had a kind of warm feeling about the Crash.

As you can see, corporate profits as a percentage of GDP peaked in 1929, and then they tanked. The left-hand side of the chart, in fact, is filled with aberrations: not only the Depression but also a wartime profits boom--sedated by the excess-profits tax--and another boom after the war. But from 1951 on, the percentage settled down pretty much to a 4% to 6.5% range.

By 1981, though, the trend was headed toward the bottom of that band, and in 1982 profits tumbled to 3.5%. So at that point investors were looking at two strong negatives: Profits were sub-par and interest rates were sky-high.

And as is so typical, investors projected out into the future what they were seeing. That's their unshakable habit: looking into the rear-view mirror instead of through the windshield. What they were observing, looking backward, made them very discouraged about the country. They were projecting high interest rates, they were projecting low profits, and they were therefore valuing the Dow at a level that was the same as 17 years earlier, even though GDP had nearly quintupled.

Now, what happened in the 17 years beginning with 1982? One thing that didn't happen was comparable growth in GDP: In this second 17-year period, GDP less than tripled. But interest rates began their descent, and after the Volcker effect wore off, profits began to climb--not steadily, but nonetheless with real power. You can see the profit trend in the chart, which shows that by the late 1990s, after-tax profits as a percent of GDP were running close to 6%, which is on the upper part of the 'normalcy' band. And at the end of 1998, long-term government interest rates had made their way down to that 5%.

These dramatic changes in the two fundamentals that matter most to investors explain much, though not all, of the more than tenfold rise in equity prices--the Dow went from 875 to 9,181-- during this 17-year period. What was at work also, of course, was market psychology. Once a bull market gets under way, and once you reach the point where everybody has made money no matter what system he or she followed, a crowd is attracted into the game that is responding not to interest rates and profits but simply to the fact that it seems a mistake to be out of stocks. In effect, these people superimpose an I-can't-miss-the-party factor on top of the fundamental factors that drive the market. Like Pavlov's dog, these 'investors' learn that when the bell rings--in this case, the one that opens the New York Stock Exchange at 9:30 a.m.--they get fed. Through this daily reinforcement, they become convinced that there is a God and that He wants them to get rich.

Today, staring fixedly back at the road they just traveled, most investors have rosy expectations. A Paine Webber and Gallup Organization survey released in July shows that the least experienced investors--those who have invested for less than five years--expect annual returns over the next ten years of 22.6%. Even those who have invested for more than 20 years are expecting 12.9%.

Now, I'd like to argue that we can't come even remotely close to that 12.9%, and make my case by examining the key value-determining factors. Today, if an investor is to achieve juicy profits in the market over ten years or 17 or 20, one or more of three things must happen. I'll delay talking about the last of them for a bit, but here are the first two:

(1) Interest rates must fall further. If government interest rates, now at a level of about 6%, were to fall to 3%, that factor alone would come close to doubling the value of common stocks. Incidentally, if you think interest rates are going to do that--or fall to the 1% that Japan has experienced--you should head for where you can really make a bundle: bond options.

(2) Corporate profitability in relation to GDP must rise. You know, someone once told me that New York has more lawyers than people. I think that's the same fellow who thinks profits will become larger than GDP. When you begin to expect the growth of a component factor to forever outpace that of the aggregate, you get into certain mathematical problems. In my opinion, you have to be wildly optimistic to believe that corporate profits as a percent of GDP can, for any sustained period, hold much above 6%. One thing keeping the percentage down will be competition, which is alive and well. In addition, there's a public-policy point: If corporate investors, in aggregate, are going to eat an ever-growing portion of the American economic pie, some other group will have to settle for a smaller portion. That would justifiably raise political problems--and in my view a major reslicing of the pie just isn't going to happen.

So where do some reasonable assumptions lead us? Let's say that GDP grows at an average 5% a year--3% real growth, which is pretty darn good, plus 2% inflation. If GDP grows at 5%, and you don't have some help from interest rates, the aggregate value of equities is not going to grow a whole lot more. Yes, you can add on a bit of return from dividends. But with stocks selling where they are today, the importance of dividends to total return is way down from what it used to be. Nor can investors expect to score because companies are busy boosting their per-share earnings by buying in their stock. The offset here is that the companies are just about as busy issuing new stock, both through primary offerings and those ever present stock options.

So I come back to my postulation of 5% growth in GDP and remind you that it is a limiting factor in the returns you're going to get: You cannot expect to forever realize a 12% annual increase--much less 22%--in the valuation of American business if its profitability is growing only at 5%. The inescapable fact is that the **value of an asset, whatever its character, cannot over the long term grow faster than its earnings do.**

Now, maybe you'd like to argue a different case. Fair enough. But give me your assumptions. If you think the American public is going to make 12% a year in stocks, I think you have to say, for example, 'Well, that's because I expect GDP to grow at 10% a year, dividends to add two percentage points to returns, and interest rates to stay at a constant level.' Or you've got to rearrange these key variables in some other manner. The Tinker Bell approach--clap if you believe--just won't cut it.

Beyond that, you need to remember that future returns are always affected by current valuations and give some thought to what you're getting for your money in the stock market right now. Here are two 1998 figures for the FORTUNE 500. The companies in this universe account for about 75% of the value of all publicly owned American businesses, so when you look at the 500, you're really talking about America Inc.

FORTUNE 500 1998 profits: $334,335,000,000 Market value on March 15, 1999: $9,907,233,000,000

As we focus on those two numbers, we need to be aware that the profits figure has its quirks. Profits in 1998 included one very unusual item--a $16 billion bookkeeping gain that *Ford* reported from its spinoff of *Associates*--and profits also included, as they always do in the 500, the earnings of a few mutual companies, such as *State Farm(a mutual insurance company)*, that do not have a market value. Additionally, one major corporate expense, stock-option compensation costs, is not deducted from profits. On the other hand, the profits figure has been reduced in some cases by write-offs that probably didn't reflect economic reality and could just as well be added back in. But leaving aside these qualifications, investors were saying on March 15 this year that they would pay a hefty $10 trillion for the $334 billion in profits.

Bear in mind--this is a critical fact often ignored--that investors as a whole cannot get anything out of their businesses except what the businesses earn. Sure, you and I can sell each other stocks at higher and higher prices. Let's say the FORTUNE 500 was just one business and that the people in this room each owned a piece of it. In that case, we could sit here and sell each other pieces at ever-ascending prices. You personally might outsmart the next fellow by buying low and selling high. But no money would leave the game when that happened: You'd simply take out what he put in. Meanwhile, the experience of the group wouldn't have been affected a whit, because its fate would still be tied to profits. The absolute most that the owners of a business, in aggregate, can get out of it in the end--between now and Judgment Day--is what that business earns over time.

And there's still another major qualification to be considered. If you and I were trading pieces of our business in this room, we could escape transactional costs because there would be no brokers around to take a bite out of every trade we made. But in the real world investors have a habit of wanting to change chairs, or of at least getting advice as to whether they should, and that costs money--big money. The expenses they bear--I call them frictional costs--are for a wide range of items. There's the market maker's spread, and commissions, and sales loads, and 12b-1 fees, and management fees, and custodial fees, and wrap fees, and even subscriptions to financial publications. And don't brush these expenses off as irrelevancies. If you were evaluating a piece of investment real estate, would you not deduct management costs in figuring your return? Yes, of course--and in exactly the same way, stock market investors who are figuring their returns must face up to the frictional costs they bear.

And what do they come to? My estimate is that investors in American stocks pay out well over $100 billion a year--say, $130 billion--to move around on those chairs or to buy advice as to whether they should! Perhaps $100 billion of that relates to the FORTUNE 500. In other words, investors are dissipating almost a third of everything that the FORTUNE 500 is earning for them--that $334 billion in 1998--by handing it over to various types of chair-changing and chair-advisory 'helpers.' And when that handoff is completed, the investors who own the 500 are reaping less than a $250 billion return on their $10 trillion investment. In my view, that's slim pickings.

Perhaps by now you're mentally quarreling with my estimate that $100 billion flows to those 'helpers.' How do they charge thee? Let me count the ways. Start with transaction costs, including commissions, the market maker's take, and the spread on underwritten offerings: With double counting stripped out, there will this year be at least 350 billion shares of stock traded in the U.S., and I would estimate that the transaction cost per share for each side--that is, for both the buyer and the seller--will average 6 cents. That adds up to $42 billion.

Move on to the additional costs: hefty charges for little guys who have wrap accounts; management fees for big guys; and, looming very large, a raft of expenses for the holders of domestic equity mutual funds. These funds now have assets of about $3.5 trillion, and you have to conclude that the annual cost of these to their investors--counting management fees, sales loads, 12b-1 fees, general operating costs--runs to at least 1%, or $35 billion.

And none of the damage I've so far described counts the commissions and spreads on options and futures, or the costs borne by holders of variable annuities, or the myriad other charges that the 'helpers' manage to think up. In short, $100 billion of frictional costs for the owners of the FORTUNE 500--which is 1% of the 500's market value--looks to me not only highly defensible as an estimate, but quite possibly on the low side.

It also looks like a horrendous cost. I heard once about a cartoon in which a news commentator says, 'There was no trading on the New York Stock Exchange today. Everyone was happy with what they owned.' Well, if that were really the case, investors would every year keep around $130 billion in their pockets.

Let me summarize what I've been saying about the stock market: I think it's very hard to come up with a persuasive case that equities will over the next 17 years perform anything like--anything like--they've performed in the past 17. If I had to pick the most probable return, from appreciation and dividends combined, that investors in aggregate--repeat, aggregate--would earn in a world of constant interest rates, 2% inflation, and those ever hurtful frictional costs, it would be 6%. If you strip out the inflation component from this nominal return (which you would need to do however inflation fluctuates), that's 4% in real terms. And if 4% is wrong, I believe that the percentage is just as likely to be <u>less</u> as more.

Let me come back to what I said earlier: that there are three things that might allow investors to realize significant profits in the market going forward. The first was that interest rates might fall, and the second was that corporate profits as a percent of GDP might rise dramatically. I get to the third point now: Perhaps you are an optimist who believes that though investors as a whole may slog along, you yourself will be a winner. That thought might be particularly seductive in these early days of the information revolution (which I wholeheartedly believe in). Just pick the obvious winners, your broker will tell you, and ride the wave.

Well, I thought it would be instructive to go back and look at a couple of industries that transformed this country much earlier in this century: automobiles and aviation. Take automobiles first: I have here one page, out of 70 in total, of car and truck manufacturers that have operated in this country. At one time, there was a *Berkshire* car and an *Omaha* car. Naturally I noticed those. But there was also a telephone book of others.

All told, there appear to have been at least 2,000 car makes, in an industry that had an incredible impact on people's lives. If you had foreseen in the early days of cars how this industry would develop, you would have said, 'Here is the road to riches.' So what did we progress to by the 1990s? After corporate carnage that never let up, we came down to three U.S. car companies--themselves no lollapaloozas for investors. So here is an industry that had an enormous impact on America--and also an enormous impact, though not the anticipated one, on investors.

Sometimes, incidentally, it's much easier in these transforming events to figure out the losers. You could have grasped the importance of the auto when it came along but still found it hard to pick companies that would make you money. But there was one obvious decision you could have made back then--it's better sometimes to turn these things upside down--and that was to short horses. Frankly, I'm disappointed that the Buffett family was not short horses through this entire period. And we really had no excuse: Living in Nebraska, we would have found it super-easy to borrow horses and avoid a 'short squeeze.'

U.S. Horse Population 1900: 21 million 1998: 5 million

The other truly transforming business invention of the first quarter of the century, besides the car, was the airplane--another industry whose plainly brilliant future would have caused investors to salivate. So I went back to check out aircraft manufacturers and found that in the 1919-39 period, there were about 300 companies, only a handful still breathing today. Among the planes made then--we must have been the Silicon Valley of that age--were both the Nebraska and the Omaha, two aircraft that even the most loyal Nebraskan no longer relies upon.

Move on to failures of airlines. Here's a list of 129 airlines that in the past 20 years filed for bankruptcy. Continental was smart enough to make that list twice. As of 1992, in fact--though the picture would have improved since then--the money that had been made since the dawn of aviation by all of this country's airline companies was zero. Absolutely zero.

Sizing all this up, I like to think that if I'd been at Kitty Hawk in 1903 when Orville Wright took off, I would have been farsighted enough, and public-spirited enough--I owed this to future capitalists--to shoot him down. I mean, Karl Marx couldn't have done as much damage to capitalists as Orville did.

I won't dwell on other glamorous businesses that dramatically changed our lives but concurrently failed to deliver rewards to U.S. investors: the manufacture of radios and televisions, for example. But I will draw a lesson from these businesses: **The <u>key to investing</u> 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.

This talk of 17-year periods makes me think--incongruously, I admit--of 17-year locusts [pictured below]. What could a current brood of these critters, scheduled to take flight in 2016, expect to encounter? I see them entering a world in which the public is less euphoric about stocks than it is now. Naturally, investors will be feeling disappointment--but only because they started out expecting too much.

Grumpy or not, they will have by then grown considerably wealthier, simply because the American business establishment that they own will have been chugging along, increasing its profits by 3% annually in real terms. Best of all, the rewards from this creation of wealth will have flowed through to Americans in general, who will be enjoying a far higher standard of living than they do today. That wouldn't be a bad world at all--even if it doesn't measure up to what investors got used to in the 17 years just passed.