MARGIN OF SAFETY

Risk-Averse Value Investing Strategies for the Thoughtful Investor

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Introduction

Investors adopt many different approaches that offer little or no real prospect of long-term success and considerable chance of substantial economic loss. Many are not coherent investment programs at all but instead resemble speculation or outright gambling. Investors are frequently lured by the prospect of quick and easy gain and fall victim to the many fads of Wall Street. My goals in writing this book are twofold. In the first section I identify many of the pitfalls that face investors. By highlighting where so many go wrong, I hope to help investors learn to avoid these losing strategies.

For the remainder of the book I recommend one particular path for investors to follow—a value-investment philosophy. Value investing, the strategy of investing in securities trading at an appreciable discount from underlying value, has a long history of delivering excellent investment results with very limited downside risk. This book explains the philosophy of value investing and, perhaps more importantly, the logic behind it in an attempt to demonstrate why it succeeds while other approaches fail.

I have chosen to begin this book, not with a discussion of what value investors do right, but with an assessment of where other investors go wrong, for many more investors lose their way along the road to investment success than reach their destination. It is easy to stray but a continuous effort to remain disci-

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plined. Avoiding where others go wrong is an important step in achieving investment success. In fact, it almost ensures it.

You may be wondering, as several of my friends have, why I would write a book that could encourage more people to become value investors. Don't I run the risk of encouraging increased competition, thereby reducing my own investment returns? Perhaps, but I do not believe this will happen. For one thing, value investing is not being discussed here for the first time. While I have tried to build the case for it somewhat differently from my predecessors and while my precise philosophy may vary from that of other value investors, a number of these views have been expressed before, notably by Benjamin Graham and David Dodd, who more than fifty years ago wrote Security Analysis, regarded by many as the bible of value investing. That single work has illuminated the way for generations of value investors. More recently Graham wrote The Intelligent Investor, a less academic description of the value-investment process. Warren Buffett, the chairman of Berkshire Hathaway, Inc., and a student of Graham, is regarded as today's most successful value investor. He has written countless articles and shareholder and partnership letters that together articulate his value-investment philosophy coherently and brilliantly. Investors who have failed to heed such wise counsel are unlikely to listen to me.

The truth is, I am pained by the disastrous investment results experienced by great numbers of unsophisticated or undisciplined investors. If I can persuade just a few of them to avoid dangerous investment strategies and adopt sound ones that are designed to preserve and maintain their hard-earned capital, I will be satisfied. If I should have a wider influence on investor behavior, then I would gladly pay the price of a modest diminution in my own investment returns.

In any event this book alone will not turn anyone into a successful value investor. Value investing requires a great deal of hard work, unusually strict discipline, and a long-term investment horizon. Few are willing and able to devote sufficient time and effort to become value investors, and only a fraction of those have the proper mind-set to succeed.

This book most certainly does not provide a surefire formula for investment success. There is, of course, no such formula. Rather this book is a blueprint that, if carefully followed, offers a good possibility of investment success with limited risk. I believe this is as much as investors can reasonably hope for.

Ideally this will be considered, not a book about investing, but a book about thinking about investing. Like most eighthgrade algebra students, some investors memorize a few formulas or rules and superficially appear competent but do not really understand what they are doing. To achieve long-term success over many financial market and economic cycles, observing a few rules is not enough. Too many things change too quickly in the investment world for that approach to succeed. It is necessary instead to understand the rationale behind the rules in order to appreciate why they work when they do and don't when they don't. I could simply assert that value investing works, but I hope to show you why it works and why most other approaches do not.

If interplanetary visitors landed on Earth and examined the workings of our financial markets and the behavior of financialmarket participants, they would no doubt question the intelligence of the planet's inhabitants. Wall Street, the financial marketplace where capital is allocated worldwide, is in many ways just a gigantic casino. The recipient of up-front fees on every transaction, Wall Street clearly is more concerned with the volume of activity than its economic utility. Pension and endowment funds responsible for the security and enhancement of long-term retirement, educational, and philanthropic resources employ investment managers who frenetically trade long-term securities on a very short-term basis, each trying to outguess and consequently outperform others doing the same thing. In addition, hundreds of billions of dollars are invested in virtual or complete ignorance of underlying business fundamentals, often using indexing strategies designed to avoid significant underperformance at the cost of assured mediocrity.

Individual and institutional investors alike frequently demonstrate an inability to make long-term investment decisions based on business fundamentals. There are a number of reasons for this: among them the performance pressures faced by institutional investors, the compensation structure of Wall Street, and the frenzied atmosphere of the financial markets. As a result, investors, particularly institutional investors, become enmeshed in a short-term relative-performance derby, whereby temporary price fluctuations become the dominant focus. Relative-performance-oriented investors, already focused on short-term returns, frequently are attracted to the latest market fads as a source of superior relative performance. The temptation of making a fast buck is great, and many investors find it difficult to fight the crowd.

Investors are sometimes their own worst enemies. When prices are generally rising, for example, greed leads investors to speculate, to make substantial, high-risk bets based upon optimistic predictions, and to focus on return while ignoring risk. At the other end of the emotional spectrum, when prices are generally falling, fear of loss causes investors to focus solely on the possibility of continued price declines to the exclusion of investment fundamentals. Regardless of the market environment, many investors seek a formula for success. The unfortunate reality is that investment success cannot be captured in a mathematical equation or a computer program.

The first section of this book, chapters 1 through 4, examines some of the places where investors stumble. Chapter 1 explores the differences between investing and speculation and between successful and unsuccessful investors, examining in particular the role of market price in investor behavior. Chapter 2 looks at the way Wall Street, with its short-term orientation, conflicts of interest, and upward bias, maximizes its own best interests, which are not necessarily also those of investors. Chapter 3 examines the behavior of institutional investors, who have come to dominate today's financial markets.

Chapter 4 uses the case study of junk bonds to illustrate

many of the pitfalls highlighted in the first three chapters. The rapid growth of the market for newly issued junk bonds was only made possible by the complicity of investors who suspended disbelief. Junk-bond buyers greedily accepted promises of a free lunch and willingly adopted new and unproven methods of analysis. Neither Wall Street nor the institutional investment community objected vocally to the widespread proliferation of these flawed instruments.

Investors must recognize that the junk-bond mania was not a once-in-a-millennium madness but instead part of the historical ebb and flow of investor sentiment between greed and fear. The important point is not merely that junk bonds were flawed (although they certainly were) but that investors must learn from this very avoidable debacle to escape the next enticing market fad that will inevitably come along.

A second important reason to examine the behavior of other investors and speculators is that their actions often inadvertently result in the creation of opportunities for value investors. Institutional investors, for example, frequently act as lumbering behemoths, trampling some securities to large discounts from underlying value even as they ignore or constrain themselves from buying others. Those they decide to purchase they buy with gusto; many of these favorites become significantly overvalued, creating selling (and perhaps short-selling) opportunities. Herds of individual investors acting in tandem can similarly bid up the prices of some securities to crazy levels, even as others are ignored or unceremoniously dumped. Abetted by Wall Street brokers and investment bankers, many individual as well as institutional investors either ignore or deliberately disregard underlying business value, instead regarding stocks solely as pieces of paper to be traded back and forth.

The disregard for investment fundamentals sometimes affects the entire stock market. Consider, for example, the enormous surge in share prices between January and August of 1987 and the ensuing market crash in October of that year. In the words of William Ruane and Richard Cunniff, chairman and

president of the Sequoia Fund, Inc., "Disregarding for the moment whether the prevailing level of stock prices on January 1, 1987 was logical, we are certain that the *value* of American industry in the aggregate had not increased by 44% as of August 25. Similarly, it is highly unlikely that the *value* of American industry declined by 23% on a single day, October 19."

Ultimately investors must choose sides. One side—the wrong choice—is a seemingly effortless path that offers the comfort of consensus. This course involves succumbing to the forces that guide most market participants, emotional responses dictated by greed and fear and a short-term orientation emanating from the relative-performance derby. Investors following this road increasingly think of stocks like sowbellies, as commodities to be bought and sold. This ultimately requires investors to spend their time guessing what other market participants may do and then trying to do it first. The problem is that the exciting possibility of high near-term returns from playing the stocks-as-pieces-of-paper-that-you-trade game blinds investors to its foolishness.

The correct choice for investors is obvious but requires a level of commitment most are unwilling to make. This choice is known as fundamental analysis, whereby stocks are regarded as fractional ownership of the underlying businesses that they represent. One form of fundamental analysis—and the strategy that I recommend—is an investment approach known as value investing.

There is nothing esoteric about value investing. It is simply the process of determining the value underlying a security and then buying it at a considerable discount from that value. It is really that simple. The greatest challenge is maintaining the requisite patience and discipline to buy only when prices are attractive and to sell when they are not, avoiding the short-term performance frenzy that engulfs most market participants.

The focus of most investors differs from that of value investors. Most investors are primarily oriented toward return, how much they can make, and pay little attention to risk, how much they can lose. Institutional investors, in particular, are

usually evaluated—and therefore measure themselves—on the basis of relative performance compared to the market as a whole, to a relevant market sector, or to their peers.

Value investors, by contrast, have as a primary goal the preservation of their capital. It follows that value investors seek a margin of safety, allowing room for imprecision, bad luck, or analytical error in order to avoid sizable losses over time. A margin of safety is necessary because valuation is an imprecise art, the future is unpredictable, and investors are human and do make mistakes. It is adherence to the concept of a margin of safety that best distinguishes value investors from all others, who are not as concerned about loss.

If investors could predict the future direction of the market, they would certainly not choose to be value investors all the time. Indeed, when securities prices are steadily increasing, a value approach is usually a handicap; out-of-favor securities tend to rise less than the public's favorites. When the market becomes fully valued on its way to being overvalued, value investors again fare poorly because they sell too soon.

The most beneficial time to be a value investor is when the market is falling. This is when downside risk matters and when investors who worried only about what could go right suffer the consequences of undue optimism. Value investors invest with a margin of safety that protects them from large losses in declining markets.

Those who can predict the future should participate fully, indeed on margin using borrowed money, when the market is about to rise and get out of the market before it declines. Unfortunately, many more investors claim the ability to foresee the market's direction than actually possess that ability. (I myself have not met a single one.) Those of us who know that we cannot accurately forecast security prices are well advised to consider value investing, a safe and successful strategy in all investment environments.

The second section of this book, chapters 5 through 8, explores the philosophy and substance of value investing. Chapter 5 examines why most investors are risk averse and dis-

cusses the investment implications of this attitude. Chapter 6 describes the philosophy of value investing and the meaning and importance of a margin of safety. Chapter 7 considers three important underpinnings to value investing: a bottom-up approach to investment selection, an absolute-performance orientation, and analytical emphasis on risk as well as return. Chapter 8 demonstrates the principal methods of securities valuation used by value investors.

The third section of this book, chapters 9 through 14, describes the value-investment process, the implementation of a value-investment philosophy. Chapter 9 explores the research and analytical process, where value investors get their ideas and how they evaluate them. Chapter 10 illustrates a number of different value-investment opportunities ranging from corporate liquidations to spinoffs and risk arbitrage. Chapters 11 and 12 examine two specialized value-investment niches: thrift conversions and financially distressed and bankrupt securities, respectively. Chapter 13 highlights the importance of good portfolio management and trading strategies. Finally, Chapter 14 provides some insight into the possible selection of an investment professional to manage your money.

The value discipline seems simple enough but is apparently a difficult one for most investors to grasp or adhere to. As Buffett has often observed, value investing is not a concept that can be learned and applied gradually over time. It is either absorbed and adopted at once, or it is never truly learned.

I was fortunate to learn value investing at the inception of my investment career from two of its most successful practitioners: Michael Price and the late Max L. Heine of Mutual Shares Corporation. While I had been fascinated by the stock market since childhood and frequently dabbled in the market as a teenager (with modest success), working with Max and Mike was like being let in on an incredibly valuable secret. How naive all of my previous investing suddenly seemed compared with the simple but incontrovertible logic of value investing. Indeed, once you adopt a value-investment strategy, any other investment behavior starts to seem like gambling.

Throughout this book I criticize certain aspects of the investment business as currently practiced. Many of these criticisms of the industry appear as generalizations and refer more to the pressures brought about by the structure of the investment business than the failings of the individuals within it.

I also give numerous examples of specific investments throughout this book. Many of them were made over the past nine years by my firm for the benefit of our clients and indeed proved quite profitable. The fact that we made money on them is not the point, however. My goal in including them is to demonstrate the variety of value-investment opportunities that have arisen and become known to me during the past decade; an equally long and rich list of examples failed to make it into the final manuscript.

I find value investing to be a stimulating, intellectually challenging, ever changing, and financially rewarding discipline. I hope you invest the time to understand why I find it so in the pages that follow.

Notes

1. Sequoia Fund, Inc., third quarter report for 1987.

I WHERE MOST INVESTORS STUMBLE

1

Speculators and Unsuccessful Investors

Investing Versus Speculation

Mark Twain said that there are two times in a man's life when he should not speculate: when he can't afford it and when he can. Because this is so, understanding the difference between investment and speculation is the first step in achieving investment success.

To investors stocks represent fractional ownership of underlying businesses and bonds are loans to those businesses. Investors make buy and sell decisions on the basis of the current prices of securities compared with the perceived values of those securities. They transact when they think they know something that others don't know, don't care about, or prefer to ignore. They buy securities that appear to offer attractive return for the risk incurred and sell when the return no longer justifies the risk.

Investors believe that over the long run security prices tend to reflect fundamental developments involving the underlying businesses. Investors in a stock thus expect to profit in at least one of three possible ways: from free cash flow generated by the underlying business, which eventually will be reflected in a higher share price or distributed as dividends; from an increase in the multiple that investors are willing to pay for the underlying business as reflected in a higher share price; or by a narrowing of the gap between share price and underlying business value.

Speculators, by contrast, buy and sell securities based on whether they believe those securities will next rise or fall in price. Their judgment regarding future price movements is based, not on fundamentals, but on a prediction of the behavior of others. They regard securities as pieces of paper to be swapped back and forth and are generally ignorant of or indifferent to investment fundamentals. They buy securities because they "act" well and sell when they don't. Indeed, even if it were certain that the world would end tomorrow, it is likely that some speculators would continue to trade securities based on what they thought the market would do today.

Speculators are obsessed with predicting—guessing—the direction of stock prices. Every morning on cable television,

Speculators are obsessed with predicting—guessing—the direction of stock prices. Every morning on cable television, every afternoon on the stock market report, every weekend in *Barron's*, every week in dozens of market newsletters, and whenever businesspeople get together, there is rampant conjecture on where the market is heading. Many speculators attempt to predict the market direction by using technical analysis—past stock price fluctuations—as a guide. Technical analysis is based on the presumption that past share price meanderings, rather than underlying business value, hold the key to future stock prices. In reality, no one knows what the market will do; trying to predict it is a waste of time, and investing based upon that prediction is a speculative undertaking.

Market participants do not wear badges that identify them as investors or speculators. It is sometimes difficult to tell the two apart without studying their behavior at length. Examining what they own is not a giveaway, for any security can be owned by investors, speculators, or both. Indeed, many "investment professionals" actually perform as speculators much of the time

because of the way they define their mission, pursuing shortterm trading profits from predictions of market fluctuations rather than long-term investment profits based on business fundamentals. As we shall see, investors have a reasonable chance of achieving long-term investment success; speculators, by contrast, are likely to lose money over time.

Trading Sardines and Eating Sardines: The Essence of Speculation

There is the old story about the market craze in sardine trading when the sardines disappeared from their traditional waters in Monterey, California. The commodity traders bid them up and the price of a can of sardines soared. One day a buyer decided to treat himself to an expensive meal and actually opened a can and started eating. He immediately became ill and told the seller the sardines were no good. The seller said, "You don't understand. These are not eating sardines, they are trading sardines."1

Like sardine traders, many financial-market participants are attracted to speculation, never bothering to taste the sardines they are trading. Speculation offers the prospect of instant gratification; why get rich slowly if you can get rich quickly? Moreover, speculation involves going along with the crowd, not against it. There is comfort in consensus; those in the majority gain confidence from their very number.

Today many financial-market participants, knowingly or unknowingly, have become speculators. They may not even realize that they are playing a "greater-fool game," buying overvalued securities and expecting-hoping-to find someone, a greater fool, to buy from them at a still higher price.

There is great allure to treating stocks as pieces of paper that you trade. Viewing stocks this way requires neither rigorous analysis nor knowledge of the underlying businesses. Moreover, trading in and of itself can be exciting and, as long as the market is rising, lucrative. But essentially it is speculating, not investing. You may find a buyer at a higher price—a greater fool—or you may not, in which case you yourself are the greater fool.

Value investors pay attention to financial reality in making their investment decisions. Speculators have no such tether. Since many of today's market participants are speculators and not investors, business fundamentals are not necessarily a limiting factor in securities pricing. The resulting propensity of the stock market to periodically become and remain overvalued is all the more reason for fundamental investors to be careful, avoiding any overpriced investments that will require selling to another, even greater fool.

Speculative activity can erupt on Wall Street at any time and is not usually recognized as such until considerable time has passed and much money has been lost. In the middle of 1983, to cite one example, the capital markets assigned a combined market value of over \$5 billion to twelve publicly traded, venturecapital-backed Winchester disk-drive manufacturers. Between 1977 and 1984 forty-three different manufacturers of Winchester disk drives received venture-capital financing. A Harvard Business School study entitled "Capital Market Myopia"² calculated that industry fundamentals (as of mid-1983) could not then nor in the foreseeable future have justified the total market capitalization of these companies. The study determined that a few firms might ultimately succeed and dominate the industry, while many of the others would struggle or fail. The high potential returns from the winners, if any emerged, would not offset the losses from the others. While investors at the time may not have realized it, the shares of these disk-drive companies were essentially "trading sardines." This speculative bubble burst soon thereafter, with the total market capitalization of these companies declining from \$5.4 billion in mid-1983 to \$1.5 billion at year-end 1984. Another example of such speculative activity took place in September 1989. The shares of the Spain Fund, Inc., a closed-end mutual fund investing in publicly traded Spanish securities, were bid up in price from approximately net asset value (NAV)—the combined market value of the underlying investments divided by the number of shares outstanding-to more than twice that level. Much of the buying emanated from Japan, where underlying value was evidently

less important to investors than other considerations. Although an identical portfolio to that owned by the Spain Fund could have been freely purchased on the Spanish stock market for half the price of Spain Fund shares, these Japanese speculators were not deterred. The Spain Fund priced at twice net asset value was another example of trading sardines; the only possible reason for buying the Spain Fund rather than the underlying securities was the belief that its shares would appreciate to an even more overpriced level. Within months of the speculative advance the share price plunged back to prerally levels, once again approximating the NAV, which itself had never significantly fluctuated.

For still another example of speculation on Wall Street, consider the U.S. government bond market in which traders buy and sell billions of dollars' worth of thirty-year U.S. Treasury bonds every day. Even long-term investors seldom hold thirtyyear government bonds to maturity. According to Albert Wojnilower, the average holding period of U.S. Treasury bonds with maturities of ten years or more is only twenty days.3 Professional traders and so-called investors alike prize thirtyyear Treasury bonds for their liquidity and use them to speculate on short-term interest rate movements, while never contemplating the prospect of actually holding them to maturity. Yet someone who buys long-term securities intending to quickly resell rather than hold is a speculator, and thirty-year Treasury bonds have also effectively become trading sardines. We can all wonder what would happen if the thirty-year Treasury bond fell from favor as a speculative vehicle, causing these short-term holders to rush to sell at once and turning thirty-year Treasury bonds back into eating sardines.

Investments and Speculations

Just as financial-market participants can be divided into two groups, investors and speculators, assets and securities can often be characterized as either investments or speculations. The distinction is not clear to most people. Both investments and speculations can be bought and sold. Both typically fluctuate in price and can thus appear to generate investment returns. But there is one critical difference: investments throw off cash flow for the benefit of the owners; speculations do not.⁴ The return to the owners of speculations depends exclusively on the vagaries of the resale market.

The greedy tendency to want to own anything that has recently been rising in price lures many people into purchasing speculations. Stocks and bonds go up and down in price, as do Monets and Mickey Mantle rookie cards, but there should be no confusion as to which are the true investments. Collectibles, such as art, antiques, rare coins, and baseball cards, are not investments, but rank speculations. This may not be of consequence to the Chase Manhattan Bank, which in the late 1980s formed a fund for its clients to invest in art, or to David L. Paul, former chairman of the now insolvent CenTrust Savings and Loan Association, who spent \$13 million of the thrift's money to purchase just one painting. Even Wall Street, which knows better, chooses at times to blur the distinction. Salomon Brothers, for example, now publishes the rate of return on various asset classes, including in the same list U.S. Treasury bills, stocks, impressionist and old master paintings, and Chinese ceramics. In Salomon's June 1989 rankings the latter categories were ranked at the top of the list, far outdistancing the returns from true investments.

Investments, even very long-term investments like newly planted timber properties, will eventually throw off cash flow. A machine makes widgets that are marketed, a building is occupied by tenants who pay rent, and trees on a timber property are eventually harvested and sold. By contrast, collectibles throw off no cash flow; the only cash they can generate is from their eventual sale. The future buyer is likewise dependent on his or her own prospects for resale.

The value of collectibles, therefore, fluctuates solely with supply and demand. Collectibles have not historically been recog-

nized as stores of value, thus their prices depend on the vagaries of taste, which are certainly subject to change. The apparent value of collectibles is based on circular reasoning: people buy because others have recently bought. This has the effect of bidding up prices, which attracts publicity and creates the illusion of attractive returns. Such logic can fail at any time.

Investment success requires an appropriate mind-set. Investing is serious business, not entertainment. If you participate in the financial markets at all, it is crucial to do so as an investor, not as a speculator, and to be certain that you understand the difference. Needless to say, investors are able to distinguish Pepsico from Picasso and understand the difference between an investment and a collectible. When your hard-earned savings and future financial security are at stake, the cost of not distinguishing is unacceptably high.

The Differences between Successful and Unsuccessful Investors

Successful investors tend to be unemotional, allowing the greed and fear of others to play into their hands. By having confidence in their own analysis and judgment, they respond to market forces not with blind emotion but with calculated reason. Successful investors, for example, demonstrate caution in frothy markets and steadfast conviction in panicky ones. Indeed, the very way an investor views the market and its price fluctuations is a key factor in his or her ultimate investment success or failure.

Taking Advantage of Mr. Market

15.5 1.

I wrote earlier that financial-market participants must choose between investment and speculation. Those who (wisely) choose investment are faced with another choice, this time between two opposing views of the financial markets. One view, widely held among academics and increasingly among

institutional investors, is that the financial markets are efficient and that trying to outperform the averages is futile. Matching the market return is the best you can hope for. Those who attempt to outperform the market will incur high transaction costs and taxes, causing them to underperform instead.

The other view is that some securities are inefficiently priced, creating opportunities for investors to profit with low risk. This view was perhaps best expressed by Benjamin Graham, who posited the existence of a Mr. Market.⁵ An ever helpful fellow, Mr. Market stands ready every business day to buy or sell a vast array of securities in virtually limitless quantities at prices that he sets. He provides this valuable service free of charge. Sometimes Mr. Market sets prices at levels where you would neither want to buy nor sell. Frequently, however, he becomes irrational. Sometimes he is optimistic and will pay far more than securities are worth. Other times he is pessimistic, offering to sell securities for considerably less than underlying value. Value investors—who buy at a discount from underlying value—are in a position to take advantage of Mr. Market's irrationality.

Some investors—really speculators—mistakenly look to Mr. Market for investment guidance. They observe him setting a lower price for a security and, unmindful of his irrationality, rush to sell their holdings, ignoring their own assessment of underlying value. Other times they see him raising prices and, trusting his lead, buy in at the higher figure as if he knew more than they. The reality is that Mr. Market knows nothing, being the product of the collective action of thousands of buyers and sellers who themselves are not always motivated by investment fundamentals. Emotional investors and speculators inevitably lose money; investors who take advantage of Mr. Market's periodic irrationality, by contrast, have a good chance of enjoying long-term success.

Mr. Market's daily fluctuations may seem to provide feed-back for investors' recent decisions. For a recent purchase decision rising prices provide positive reinforcement; falling prices, negative reinforcement. If you buy a stock that subsequently rises in price, it is easy to allow the positive feedback provided

by Mr. Market to influence your judgment. You may start to believe that the security is worth more than you previously thought and refrain from selling, effectively placing the judgment of Mr. Market above your own. You may even decide to buy more shares of this stock, anticipating Mr. Market's future movements. As long as the price appears to be rising, you may choose to hold, perhaps even ignoring deteriorating business fundamentals or a diminution in underlying value.

Similarly, when the price of a stock declines after its initial purchase, most investors, somewhat naturally, become concerned. They start to worry that Mr. Market may know more than they do or that their original assessment was in error. It is easy to panic and sell at just the wrong time. Yet if the security were truly a bargain when it was purchased, the rational course of action would be to take advantage of this even better bargain and buy more.

Louis Lowenstein has warned us not to confuse the real success of an investment with its mirror of success in the stock market.6 The fact that a stock price rises does not ensure that the underlying business is doing well or that the price increase is justified by a corresponding increase in underlying value. Likewise, a price fall in and of itself does not necessarily reflect adverse business developments or value deterioration.

It is vitally important for investors to distinguish stock price fluctuations from underlying business reality. If the general tendency is for buying to beget more buying and selling to precipitate more selling, investors must fight the tendency to capitulate to market forces. You cannot ignore the market-ignoring a source of investment opportunities would obviously be a mistake—but you must think for yourself and not allow the market to direct you. Value in relation to price, not price alone, must determine your investment decisions. If you look to Mr. Market as a creator of investment opportunities (where price departs from underlying value), you have the makings of a value investor. If you insist on looking to Mr. Market for investment guidance, however, you are probably best advised to hire someone else to manage your money.

Security prices move up and down for two basic reasons: to

reflect business reality (or investor perceptions of that reality) or to reflect short-term variations in supply and demand. Reality can change in a number of ways, some company-specific, others macroeconomic in nature. If Coca-Cola's business expands or prospects improve and the stock price increases proportionally, the rise may simply reflect an increase in business value. If Aetna's share price plunges when a hurricane causes billions of dollars in catastrophic losses, a decline in total market value approximately equal to the estimated losses may be appropriate. When the shares of Fund American Companies, Inc., surge as a result of the unexpected announcement of the sale of its major subsidiary, Fireman's Fund Insurance Company, at a very high price, the price increase reflects the sudden and nearly complete realization of underlying value. On a macroeconomic level a broad-based decline in interest rates, a drop in corporate tax rates, or a rise in the expected rate of economic growth could each precipitate a general increase in security prices.

Security prices sometimes fluctuate, not based on any apparent changes in reality, but on changes in investor perception. The shares of many biotechnology companies doubled and tripled in the first months of 1991, for example despite a lack of change in company or industry fundamentals that could possibly have explained that magnitude of increase. The only explanation for the price rise was that investors were suddenly willing to pay much more than before to buy the same thing.

In the short run supply and demand alone determine market prices. If there are many large sellers and few buyers, prices fall, sometimes beyond reason. Supply-and-demand imbalances can result from year-end tax selling, an institutional stampede out of a stock that just reported disappointing earnings, or an unpleasant rumor. Most day-to-day market price fluctuations result from supply-and-demand variations rather than from fundamental developments.

Investors will frequently not know why security prices fluctuate. They may change because of, in the absence of, or in complete indifference to changes in underlying value. In the short run investor perception may be as important as reality itself in

determining security prices. It is never clear which future events are anticipated by investors and thus already reflected in today's security prices. Because security prices can change for any number of reasons and because it is impossible to know what expectations are reflected in any given price level, investors must look beyond security prices to underlying business value, always comparing the two as part of the investment process.

Unsuccessful Investors and Their Costly Emotions

Unsuccessful investors are dominated by emotion. Rather than responding coolly and rationally to market fluctuations, they respond emotionally with greed and fear. We all know people who act responsibly and deliberately most of the time but go berserk when investing money. It may take them many months, even years, of hard work and disciplined saving to accumulate the money but only a few minutes to invest it. The same people would read several consumer publications and visit numerous stores before purchasing a stereo or camera yet spend little or no time investigating the stock they just heard about from a friend. Rationality that is applied to the purchase of electronic or photographic equipment is absent when it comes to investing.

Many unsuccessful investors regard the stock market as a way to make money without working rather than as a way to invest capital in order to earn a decent return. Anyone would enjoy a quick and easy profit, and the prospect of an effortless gain incites greed in investors. Greed leads many investors to seek shortcuts to investment success. Rather than allowing returns to compound over time, they attempt to turn quick profits by acting on hot tips. They do not stop to consider how the tipster could possibly be in possession of valuable information that is not illegally obtained or why, if it is so valuable, it is being made available to them. Greed also manifests itself as undue optimism or, more subtly, as complacency in the face of bad news. Finally greed can cause investors to shift their focus away from the achievement of long-term investment goals in favor of short-term speculation.

High levels of greed sometimes cause new-era thinking to be introduced by market participants to justify buying or holding overvalued securities. Reasons are given as to why this time is different from anything that came before. As the truth is stretched, investor behavior is carried to an extreme. Conservative assumptions are revisited and revised in order to justify ever higher prices, and a mania can ensue. In the short run resisting the mania is not only psychologically but also financially difficult as the participants make a lot of money, at least on paper. Then, predictably, the mania reaches a peak, is recognized for what it is, reverses course, and turns into a selling panic. Greed gives way to fear, and investor losses can be enormous.

As I discuss later in detail, junk bonds were definitely such a mania. Prior to the 1980s the entire junk-bond market consisted of only a few billion dollars of "fallen angels." Although newly issued junk bonds were a 1980s invention and were thus untested over a full economic cycle, they became widely accepted as a financial innovation of great importance, with total issuance exceeding \$200 billion. Buyers greedily departed from historical standards of business valuation and creditworthiness. Even after the bubble burst, many proponents stubbornly clung to the validity of the concept.

Greed and the Yield Pigs of the 1980s

There are countless examples of investor greed in recent financial history. Few, however, were as relentless as the decade-long "reach for yield" of the 1980s. Double-digit interest rates on U.S. government securities early in the decade whetted investors' appetites for high nominal returns. When interest rates declined to single digits, many investors remained infatuated with the attainment of higher yields and sacrificed credit quality to achieve them either in the bond market or in equities. Known