

Mr. Market by Benjamin Graham

The happiness of those who want to be popular depends on others; the happiness of those who seek pleasure fluctuates with moods outside their control; but the happiness of the wise grows out of their own free acts. —Marcus Aurelius

Excerpts from **Chapter 8: The Investor and Market Fluctuations** in Intelligent Investor (Rev. Ed.) by Benjamin Graham with updated commentary by Jason Zweig.

Editorial commentary is inserted after the paragraph in the shaded boxes so you can easily choose to skip over to maintain the flow of Graham's prose.

Chapter 8 is the first of the two chapters—8 & 20, "Margin of Safety" as the Central Concept of Investment—that Warren E. Buffett considered the **two most important chapters on investing**. The advice in these chapters provides the proper framework for making decisions; you must provide the emotional discipline. Warren Buffett describes this book: "I read the first edition of this book early in 1950, when I was nineteen. I thought then that it was by far the best book about investing ever written. I still think it is."

Buffett goes on to say that if you follow the behavioral and business principles that Graham advocates, **you will not get a bad result from your investments**. Whether you achieve outstanding results will depend on the effort and intellect you apply to your investments, as well as the amplitudes of stock market folly that prevail during your investment career. Graham and Buffett both spent years studying the history and the psychology of the markets.

Graham writes in The Intelligent Investor that comparatively little will be said about the technique of analyzing securities; attention will be paid chiefly to investment principles and investors' attitudes. The underlying principles of sound investment should not alter from decade to decade, but the application of these principles must be adapted to significant changes in the financial mechanisms and climate.

Studying financial and market history is critical for becoming an intelligent investor. As Graham says, "To invest intelligently in securities one should be forearmed with an adequate knowledge of how the various types of bonds and stocks have actually behaved under varying conditions—some of which, at least, one is likely to meet again in one's own experience. No statement is truer and better applicable to Wall Street than the famous warning of Santayana: "Those who do not remember the past are condemned to repeat it."

Go to www.djaverages.com and click on market history to see charts of the DJIA from 1896 until today. A reference guide for you to keep alongside your readings of market history. If you are to become a master investor (the best you can be) then you will need to make a study of financial history and review the past market cycles in the credit, stock, bond and commodities markets.

Think about ways to **insulate yourself** from the emotions of the market—don't ignore the fear and folly of others nor your own—but think of ways that you can become more rational. I try to do my homework on the company/investment, know the industry, have a margin of safety, etc. But I also place buy and sell orders at attractive price levels before the market opens. I have learned by bitter experience that when the news is horrific and the price plummets to a my pre-determined level, I hesitate letting the opportunity slip away. I rarely watch prices and CNBC (Bubblevision) during the trading day so as not to waste time and be tempted into an unthoughtful action. **If you track your mistakes**, you can think of solutions to protect yourself from irrationality. Eating well, sleeping enough, exercising and taking

breaks works for me in maintaining a calm mental framework. I sometimes short what I consider overvalued businesses in bad industries with high debt loads and poor cash flow, for example, but I only place a position on that would be one-third of a core position and I try to short with a basket approach and consider it a complement to my overall portfolio. That approach alleviates some of the stresses of shorting as well as having a plan to exit if wrong. What matters is what you can do within your investment process to use price as an ally and not an enemy. Take the principles that work and adapt them to your style.

Market Fluctuations as a Guide to Investment Decisions

Since common stocks, even of investment grade, are subject to recurrent and wide fluctuations in their prices, the intelligent investor should be interested in the possibilities of profiting from these pendulum swings. There are two possible ways by which he/she may try to do this: the way of *timing* and the way of *pricing*. By timing we mean the endeavor to *anticipate* the action of the stock market—to buy or hold when the future course is deemed to be upward, to sell or refrain from buying when the course is downward. By pricing we mean the endeavor to buy stocks when they are quoted below their fair value and to sell them when they rise above such value. A less ambitious form of pricing is the simple effort to make sure that when you buy you do not pay too much for your stocks. This may suffice for the defensive investor, whose emphasis is on long pull holding; but as such it represents an essential minimum of attention to market levels.¹

We are convinced that the intelligent investor can derive satisfactory results from pricing of either type. We are equally sure that if he places his emphasis on timing, in the sense of forecasting, he will end up as a speculator and with a speculator's financial results.² This distinction may seem rather tenuous to the laymen, and it is not commonly accepted in Wall Street. As a matter of business practice, or perhaps of thorough going conviction, the stock brokers and the investment services seem wedded to the principle that both investors and speculators in common stocks should devote careful attention to **market forecasts**.

Graham points out an essential point for investing out-performance, simply endeavor not to over-pay for an investment. Better yet, seek to buy below and sell above value. Of course, this is easier said than done, but an investor's first step is to know what to strive for in their investment process. *Graham* also mentions the futility and waste of time in seeking out market forecasts.

The farther one gets from Wall Street, the more skepticism one will find, we believe, as to the pretensions of stock-market forecasting or timing. The investor can scarcely take seriously the innumerable predictions which appear almost daily and are his for the asking. Yet in many cases he pays attention to them and even acts upon them. Why? Because he has been persuaded that it is important for him to form some opinion of the future course of the stock market, and because he feels that the brokerage or service forecast is at least more dependable than his own.

In the late 1990s, the forecasts of "market strategists" became more influential than ever before. They did not, unfortunately, become more accurate. On March 10, 2000, the very day that the NASDAQ composite index hit its all time high of 5048.62, Prudential Securities chief technical analyst Ralph Acampora said in USA Today that he expected NASDAQ to hit 6,000 within 12 to 18 months. The NASDAQ finally scraped bottom on October 9, 2002 at 1,114.11.

¹ Except, perhaps, in dollar-cost averaging plans begun at a reasonable price level.

² As far back as 1934, in our textbook Security Analysis, we attempted a precise formulation of the difference between the two, as follows: "An investment operation is one which, upon **thorough analysis** promises **safety of principal** and an **adequate return**. Operations not meeting these requirements are speculative." Page 18 of Intelligent Investor.

We lack space here to discuss in detail the pros and cons of market forecasting. A great deal of brain power goes into this field, and undoubtedly some people can make money by being good stock market analysts. But it is absurd to think that the general public can ever make money out of market forecasts. For who will buy when the general public, at a given signal, rushes to sell out at a profit? If you, the reader, expect to get rich over the years by following some system of leadership in market forecasting, you must be expecting to try to do what countless others are aiming at, and to be able to do it better than your numerous competitors in the market. There is no basis either in logic or in experience for assuming that any typical or average investor can anticipate market movements more successfully than the general public, of which he/she is himself/herself a part.

Graham captures the paradox of the public trying to out-perform itself in doing the important but undoable—forecasting a complex adaptive system—the stock market of which you are a part. Knowing what to ignore like the important but unknowable feat of predicting the market’s direction is just as important what to focus on.)

There is one aspect of the “timing” philosophy which seems to have escaped everyone’s notice. Timing is of great psychological importance to the speculator because he wants to make his profit in a hurry. The idea of waiting a year before his stock moves up is repugnant to him. But a waiting period as such, is of no consequence to the investor. What advantage is there to him in having his money uninvested until he receives some (presumably) trustworthy signal that the time has come to buy? **He enjoys an advantage only if by waiting he succeeds in buying later at a sufficiently lower price to offset his loss of dividend income.** What this means is that timing is of no real value to the investor unless it coincides with pricing—that is, unless it enables him to repurchase his shares at substantially under his previous selling price.

In this respect the famous *Dow Theory* for timing purchases and sale has had an unusual history. Briefly, this technique takes its signal to buy from a special kind of “breakthrough” of the stock averages on the up side, and its selling signal from a similar breakthrough on the downside. They calculate—not necessarily actual-results of using this method showed an almost unbroken series of profits in operation from 1897 to the early 1960s. On the basis of this presentation the practical value of the *Dow Theory* would have appeared firmly established; the doubt, if any, would apply to the dependability of this published “record” as a picture of what a Dow theorist would actually have done in the market.

For more detail on *Dow Theory*, see <http://viking.som.yale.edu/will/dow/dowpage.html>

Stephen Brown, Alok Kumar and I have studied the performance of the *Dow Theory* over the period 1903 to the present. Using the editorials of William Peter Hamilton, we simulated the investment return achieved by someone who followed the theory. In addition, we used neural net methods to “extract” the theory from Hamilton’s editorials, and test it out of sample. The working paper may be downloaded, and the published version appeared in the August, 1998 volume of the *Journal of Finance*. This site is a resource area for information about our analysis and the more recent *Dow Theory* performance. If you have a question about the paper, our data, our method or the recent performance of the theory, please refer to the links below. We hope they will be of some help.

A closer study of the figures indicates that the quality of the results shown by the *Dow Theory* changed radically after 1938—a few years after the theory had begun to be taken seriously on Wall Street. Its spectacular achievement had been in giving a sell signal, at 306, about a month before the 1929 crash and in keeping its followers out of the long bear market until things had pretty well righted themselves,

at 84, in 1933. But from 1938 on the *Dow Theory* operated mainly by taking its practitioners out at a pretty good price but then putting them back in again at a higher price. **For nearly 30 years thereafter, one would have done appreciable better by just buying and holding the DJIA.**³

In our view, based on much study of this problem, the change in the *Dow Theory* results is not accidental. It demonstrated an inherent characteristic of forecasting and trading formulas in the fields of business and finance. Those formulas that gain adherents and importance do so because they have worked well over a period, or sometime merely because they have been plausibly adapted to the statistical record of the past. But as their acceptance increases, their reliability tends to diminish. This happens for two reasons: First, the passage of time brings in new conditions which the old formula no longer fits. Second, in stock-market affairs the popularity of a trading theory has itself an influence on the market's behavior which detracts in the long run from its profit making possibilities. (The popularity of something like the *Dow Theory* may seem to create its own vindication, since it would make the market advance or decline by the very action of its followers when buying or selling signal is given. A "stampede" of this kind is, of course, much more of a danger than an advantage to the public trader.)

Buy-Low-Sell-High Approach

We are convinced that the average investor cannot deal successfully with price movements by endeavoring to forecast them. Can he benefit from them *after* they have taken place—i.e., by buying after each major decline and selling out after each major advance? The fluctuations of the market over a period of many years prior to 1950 lent considerable encouragement to that idea. In fact, a classic definition of a "shrewd investor" was "one who bought in a bear market when everyone else was selling, and sold out in a bull market when everyone else was buying." If we examine our [Chart 1](#), covering the fluctuations of the S&P 500 composite index between 1900 and 1970, and the supporting figures in Table 3-1 (p 66), we can readily see why this viewpoint appeared valid until fairly recent years.

Between 1897 and 1949 there were ten complete market cycles, running from bear-market low to bull market high and back to bear-market low. Six of these took no longer than four years, four ran for six and seventy years, and one—the famous "new-era" cycle of 1921-32—lasted eleven years, the percentage of advance from the lows to highs ranged from 44% to 500%, with most between about 50% and 100%. The percentage of subsequent declines ranged from 24% to 89%, with most found between 40% and 50%. (It should be remembered that a decline of 50% fully offsets a preceding advance of 100%).

Nearly all the bull markets had a number of well-defined characteristics in common, such as (1) a historically high price level, (2) high price/earnings ratios, (3) low dividend yields as against bond yields, (4) much speculation on margin, and (5) many offerings of new common stock issues of poor quality. Thus to the student of stock-market history it appeared that the intelligent investor should have been able to identify the recurrent bear and bull markets, to buy in the former and sell in the latter, and to do so for the most part at reasonably short intervals of time. Various methods were developed for determining buying and selling levels of the general market, based on either value factors or percentage movements of prices or both.

But we must point out that even prior to the unprecedented bull market that began in 1949, there were sufficient variations in the successive market cycles to complicate and sometimes frustrate the desirable process of buying low and selling high. The most notable of these departures, of course, was the great

³ But according to Robert M. Ross, authority on the *Dow Theory*, the last two buy signals, shown in December 1966 and December 1970, were well below the preceding selling points.

bull market of the late 1920s, which threw all calculations badly out of gear.⁴ Even in 1949, therefore, it was by no means a certainty that the investor could base his financial policies and procedures mainly on the endeavor to buy at low levels in bear markets and to sell out at high levels in bull markets.

It turned out, in the sequel, that the opposite was true. The market's behavior in the past 20 years has not followed the former pattern, nor obeyed what once were well-established danger signals, nor permitted its successful exploitation by applying old rules for buying low and selling high. Whether the old, fairly regular bull-and-bear-market pattern will eventually return we do not know. But it seems unrealistic to use for the investor to endeavor to base his present policy on the classic formula—i.e., to wait for demonstrable bear-market levels before buying *any* common stocks. Our recommended policy has, however, made provision for changes in the *proportion* of common stocks to bonds in the portfolio, if the investor chooses to do so, according as the level of stock prices appears less or more attractive by value standards.

Graham has explained the **futility of making and following market forecasts**. Of course, today entire businesses like CNBC are built on market prognostications. Graham makes a subtle point. An investor can't hope to reliably predict the future movements of either the stock market or particular stocks. However the investor can opportunistically take advantage of prices away from their intrinsic values. For example, it may seem obvious in hindsight that a majority of stocks trading under their net working capital including all debt would be below their fair values, but purchasing such stocks during extremely depressed business conditions and fears for the future is easier said than done.

Formula Plans

In the early years of the stock market rise that began in 1949-50, considerable interest was attracted to various methods of taking advantage of the stock market's cycles. These have been known as "formula investment plans." The essence of all such plans—except the simple case of dollar averaging—is that the investor automatically does some selling of common stocks when the market advances substantially. In many of them a very large rise in the market level would result in the sale of all common stock holdings; others provided for retention of a minor proportion of equities under all circumstances.

This approach had the double appeal of sounding logical (and conservative) and of showing excellent results when applied retrospectively to the stock market over many years in the past. Unfortunately, its vogue grew greatest the very time when it was destined to work least well. Many of the "formula planners" found themselves entirely or nearly out of the stock market at some level in the middle 1950s. True, they had realized excellent profits, but in a broad sense the market "ran away" from them thereafter, and their formulas gave them little opportunity to buy back a common stock position.⁵

⁴ Without bear markets to take stock price back down, anyone waiting to "buy low" will feel completely left behind—and, all too often, will end up abandoning any former caution and jumping in with both feet. That is why Graham's message about the importance of **emotional discipline** is so important. From October 1990 through January 2000, the Dow Jones Industrial Average marched relentlessly upward, never losing more than 20% and suffering a loss of 1% or more only three times. The total gain (not including dividends): 395.7%. According to *Crandall, Pierce & Company*, this was the second longest uninterrupted bull market of the past century; only the 1949-1961 boom lasted longer. The longer a bull market lasts, the more severely investors will be afflicted with amnesia; after five years or so, many people no longer believe that bear markets are even possible. All those who forget are doomed to be reminded; and, in the stock market, recovered memories are always unpleasant.

⁵ Many of these "formula planners" would have sold all their stocks at the end of 1954, after the U.S. stock market rose 52.6%, the second-highest yearly return then on record. Over the next five years these market-timers yearly return then on record. Over the next five years, these market-timers would likely have stood on the sidelines as stocks doubled.

There is a similarity between the experience of those adopting the formula-investing approach in the early 1950s and those who embraced the purely mechanical version of the *Dow Theory* some 20 years earlier. In both cases the advent of popularity marks almost the exact moment when the system ceased to work well. We have had a like discomfiting experience with our own “central value method” of determining indicated buying and selling levels of the Dow Jones Industrial Average (DJIA). The moral seems to be that any approach to moneymaking in the stock market which can be easily described and followed by a lot of people is by its terms too simple and too easy to last.⁶

Spinoza’s concluding remark applies to Wall Street as well as to philosophy: “**All things excellent are as difficult as they are rare.**”

Market Fluctuations of the Investor’s Portfolio

Every investor who owns common stocks must expect to see them fluctuate in value over the years. The behavior of the DJIA since our last edition was written in 1964 probably reflects pretty well what has happened to the stock portfolio of a conservative investor who limited his stock holdings to those of large, prominent, and conservatively financed corporations. The overall value advanced from an average level of about 890 to a high of 995 in 1996 (and 985 again in 1968), fell to 631 in 1970, and made an almost full recovery to 940 in early 1971. (Since the individual issues set their high and low market at different times, the fluctuations in the Dow Jones Group as a whole are less severe than those in the separate components.) We have traced through the price fluctuations of other types of diversified and conservative common stock portfolios and we find that the overall result are not likely to be markedly different from the above. In general, the shares of second-line companies (www.standardandpoor.com) fluctuate more widely than the major ones, but this does not necessarily mean that a group of well established but smaller companies will make a poorer showing over a fairly long period. In any case the investor may as well resign himself in advance to the probability rather than the mere possibility that most of his holdings will advance, say 50% or more from their low point and decline the equivalent one third or more from their high point at various periods in the next five years.

As an investor you must live with “noise” or meaningless fluctuations by either ignoring or taking advantage of prices moving away from intrinsic value. You must have the emotional equanimity to ignore the price fluctuations (of 30% to 50%) and strident market forecasts and focus on valuing companies within your circle of competence.

A serious investor is not likely to believe that the day-to-day or even month-to-month fluctuations of the stock market make him richer or poorer. But what about the longer-term and wider changes? Here practical questions present themselves, and the psychological problems are likely to grow complicated. A substantial rise in the market is at once a legitimate reason for satisfaction and a case for prudent concern, but it may also bring a strong temptation toward imprudent action. Your shares have advanced, good!

You are richer than you were, good! But has the price risen too high, and should you think of selling? Or should you kick yourself for not having bought more shares when the level was lower? Or—worst thought of all—should you now give way to the bull market atmosphere, become **infected with the enthusiasm**, the overconfidence and the greed of the great public (of which, after all, you are a part), and make larger and dangerous commitments? Presented thus in print, the answer to the last question is a

⁶ Easy ways to make money in the stock market (Formulas) fade for two reasons: the natural tendency of trends to reverse over time, or “**regress to the mean**,” and the rapid adoption of the stock-picking scheme by large numbers of people, who pile in and spoil all the fun of these who got there first. (Note that, in referring to his discomfiting experience,” Graham is—as always—honest in admitting his own failures.)

self-evident no, but even the intelligent investor is likely to need considerable will power to keep from following the crowd.

It is for these reasons of human nature, even more than by calculation of financial gain or loss, that we favor some kind of mechanical method for varying the proportion of bonds to stocks in the investor's portfolio. The chief advantage, perhaps, is that such a formula will give him something to do. As the market advances he will from time to time make sales out of his stockholdings, putting the proceeds into bonds; as it declines he will reverse the procedure. These activities will provide some outlet for his otherwise too-pent-up energies. If he is the right kind of investor he will take added satisfaction from the thought that his operations are exactly opposite from those of the crowd

Business Valuations versus Stock-Market Valuations

The impact of market fluctuations upon the investor's true situation may be considered also from the standpoint of the shareholder as the part owner of various businesses. The holder of marketable shares actually has a double status, and with it the privilege of taking advantage of either at his choice. On the one hand his position is analogous to that of a minority shareholder or silent partner in a private business. Here his results are entirely dependent on the profits of the enterprise or on a change in the underlying value of its assets. He would usually determine the value of such a private-business interest by calculating his share of the net worth as shown in the most recent balance sheet. On the other hand, the common-stock investor holds a piece of paper, an engraved stock certificate, which can be sold in a matter of minutes at a price which varies from moment-to-moment—when the market is open, that is—and often is far removed from the balance-sheet value.

The development of the stock market in recent decades has made the typical investor more dependent on the course of price quotations and less free than formerly to consider himself merely a business owner. The reason is that the successful enterprises in which he is likely to concentrate his holdings sell almost constantly at prices well above their net asset value (or book value, or "balance-sheet value"). In paying these market premiums the investor gives precious hostages to fortune, for he must depend on the stock market itself to validate his commitments.⁷

This is a factor of prime importance in present-day investing, and it has received less attention than it deserves. The whole structure of stock-market quotations contains a built-in contradiction. The better a company's record and prospects, the less relationship the price of its shares will have to their book value. But the greater the premium above book value, the less certain the basis of determining its intrinsic value—i.e., the more this "value" will depend on the changing moods and measurements of the stock market. Thus we reach the final paradox, that the more successful the company, the greater are likely to be the fluctuations in the price of its shares. This really means that, in a very real sense, **the better the quality of a common stock, the more speculative it is likely to be**—at least as compared with the unspectacular middle-grade issues.⁸ (What we have said applies to a comparison of the leading growth

⁷ Net asset value, book value, balance-sheet value, and tangible-asset value are all synonyms for *net worth*, or the total value of a company's physical and financial assets minus all its liabilities. It can be calculated using the balance sheets in a company's annual and quarterly reports; from total shareholders' equity, subtract all "soft" assets such as goodwill, trademark, and other intangibles. Divide by the fully diluted number of shares outstanding to arrive at book value per share.

⁸ Graham's use of the word "**paradox**" is probably an allusion to a classic article by *David Durand*, "Growth Stocks and the Petersburg Paradox," (1957) which compares investing in high-priced growth stocks to betting on a series of coin flips in which the payoff escalates with each flip of the coin. *Durand* points out that if a growth stock could continue to grow at a high rate for an indefinite period of time, an investor should (in theory) be willing to pay an infinite price for its shares. Why, then, has no stock ever sold for a price of infinity dollars per share? Because the higher the assumed future growth rate, and the longer the time period over which it is expected, the wider the margin for error grows, and the higher the cost of even a tiny miscalculation becomes. Graham discusses this problem further in the general relationship

companies with the bulk of well-established concerns; we exclude from our purview here those issues which are highly speculative because the businesses themselves are speculative.)

The argument made above should explain the often erratic price behavior of our most successful and impressive enterprises. Our favorite example is the monarch of them all—*International Business Machines*. The price of its shares fell from 706 to 300 in seven months in 1962-63; after two splits its price fell from 387 to 219 in 1970. Similarly, *Xerox*—an even more impressive earnings gainer in recent decades—fell from 171 to 87 in 1962-63, and from 116 to 65 in 1970. These striking losses did not indicate any doubt about the future long-term growth of *IBM* and *Xerox*; they reflected instead a lack of confidence in the premium valuation that the stock market itself had placed on these excellent prospects.

Paying too much for great companies is second only to paying too much for a poor company as major mistakes for an investor to make. No security can be bought regardless of price. There is a saying on Wall Street, “**There are no bad bonds only bad bond prices.**”

The previous discussion leads us to a conclusion of practical importance to the conservative investor in common stocks. If he is to pay some special attention to the selection of his portfolio, it might be best for him to concentrate on issues selling at a reasonably close approximation to their tangible-asset value—say, at not more than one-third above that figure. Purchases made at such levels, or lower, may with logic be regarded as related to the company’s balance sheet, and as having a justification or support independent of the fluctuating market prices. The premium over book value that may be involved can be considered as a kind of extra fee paid for the advantage of stock-exchange listing and the marketability that goes with it.

A caution is needed here. A stock does not become a sound investment merely because it can be bought close to its asset value alone. The investor should demand, in addition, a **satisfactory ratio of earnings to price**, a sufficiently **strong financial position**, and the prospect that its **earnings will at least be maintained over the years**. This may appear like demanding a lot from a modestly priced stock, but the prescription is not hard to fill under all but dangerously high market conditions. Once the investor is willing to forgo brilliant prospects—i.e., better than average expected growth—he will have no difficulty in finding a side selection of issues meeting these criteria.

In our chapters on the selection of common stocks (Chapters 14 and 15) we shall give data showing the more than half of the DJIA issues met our asset-value criterion at the end of 1970. The most widely held investment of all—*American Tel & Tel*.—actually sells below its tangible-asset value as we write. Most of the light-and-power shares, in addition to their other advantages, are now (early 1972) available at prices reasonably close to their asset values.

between mathematics and the new approach to stock values. As Graham says, “But more important than the foregoing is the general relationship between mathematics and the new approach to stock value. Given the three ingredients of: (a) optimistic assumptions as to the rate of earnings growth, (b) a sufficiently long projection of this growth into the future, and (c) the miraculous working of compound interest-lo!

The security analyst is supplied with a new kind of philosopher’s stone which can produce or justify any desired valuation for a really “good stock.” I have commented in a recent article in the Analysts’ Journal on the vogue of higher mathematics in bull markets, and quoted David Durand’s exposition of the striking analogy between value calculations of growth stocks and the famous **Petersburg Paradox**, which has challenged and confused mathematicians for more than two hundred years. The point I want to make here is that there is a special paradox in the relationship between mathematics and investment attitudes on common stocks, which is this: Mathematics is ordinarily considered as producing precise and dependable results; but in the stock market the more elaborate and abstruse the mathematics the more uncertain and speculative are the conclusions we draw therefore. In forth-four years of Wall Street experience and study I have never seen dependable calculations made about common—stock values, or related investment policies that went beyond simple arithmetic or the most elementary algebra. Whenever calculus is brought in, or higher algebra. Whenever calculus is brought in, or higher algebra, you could take it as a warning signal that the operator was trying to substitute theory for experience, and usually also to give to speculation the deceptive guise of investment. (*If only the “Quants” in 2006-2010, who valued sub-prime mortgages learned this lesson.*)

The investor with a stock portfolio having such book values behind it can take a much more independent and detached view of stock market fluctuations than those who **have paid high multipliers of both earnings and tangible assets. As long as the earning power of his holdings remains satisfactory, he can give as little attention as he pleases to the vagaries of the stock market.** More than that, at times he can use these vagaries to play the master game of buying low and selling high.

The A. & P. Example

At this point we shall introduce one of our original examples, which date back many years but which has a certain fascination for us because it combines so many aspects of corporate and investment experience. It involves the *Great Atlantic & Pacific Tea Company*. Here is the story:

A&P shares were introduced to trading on the “Curb” market, now the *American Stock Exchange (AMEX)*, in 1929 and sold as high as \$494. By 1932 they had declined to \$104, although the company’s earnings were nearly as large in that generally catastrophic year as previously. In 1936 the range was between \$111 and \$131. Then in the business recession and bear market of 1938 the shares fell to a new low of \$36.

That price was extraordinary. It meant that the preferred and common were together selling for \$126 million, although the company had just reported that it held \$85 million in cash alone and a working capital (or net current assets) of \$134 million. *A&P* was the largest retail enterprise in America, if not in the world, with a continuous and impressive record of large earnings for many years. **Yet in 1938 this outstanding business was considered on Wall Street to be worth less than its current assets alone—which means less as a going concern than if it were liquidated.** Why? First, because there were threats of special taxes on chain stores; second, because net profits had fallen off in the previous year; and, third, because the general market was depressed. The first of these reasons was an exaggerated and eventually groundless fear; the other two were typical of temporary influences.

Let us assume that the investor had bought *A&P* common on 1937 at, say 12 times its five-year average earnings, or about \$80. We are far from asserting that the ensuing decline to \$36 was of no importance to him. **He would have been well advised to scrutinize the picture with some care, to see whether he had made any miscalculations.** But if the results of his study were reassuring—as they should have been—he was entitled then to disregard the market decline as a temporary vagary of finance, unless he had the funds and the courage to take advantage of it by buying more on the bargain basis offered.

Sequel and Reflections

The following year, 1939, *A&P* shares advanced to \$117.5, or three times the low price of 1938 and well above the average of 1937. Such a turnabout in the behavior of common stocks is by no means uncommon, but in the case of A. & P. it was more striking than most. In the years after the 1949 the grocery chain’s shares rose with the general market until in 1961 the split-up stock (10 for 1) reached a high of \$70.5 which was equivalent to \$705 for the 1938 shares.

This price of 70.5 was remarkable for the fact it was 30 times the earnings of 1961, such a price/earnings ratio—which compares with 23 times for the DJIA in that year—must have implied expectations of a brilliant growth in earnings. This optimism had no justification in the company’s earnings record in the preceding years, and it proved completely wrong. Instead of advancing rapidly, the course of earnings in the ensuing period was generally downward. The year after the \$70.5 high the price fell by more than half to \$34. But this time the shares did not have the bargain quality that they showed at the low

quotation in 1938. After varying sorts of fluctuations, the price fell to another low of \$21.5 in 1970 and \$18 in 1972 after having reported the first quarterly deficit in its history.

We see in this history how wide can be the vicissitudes of a major American enterprise in little more than a single generation, and also with what miscalculations and excesses of optimism and pessimism the public has valued its shares. In 1938 the business was really being given away, with no takers; in 1961 the public was clamoring for the shares at a ridiculously high price. After that, came a quick loss of half the market value, and some years later a substantial further decline. In the meantime the company was to turn from an outstanding to a mediocre earnings performer; its profit in the boom year 1968 was to be less than in 1958; it had paid a series of confusing small stock dividends not warranted by the current additions to surplus, and so forth. *A.&P. (GAP)* was a larger company in 1961 and 1972 than in 1938, but not as well-run, not as profitable, and not as attractive.⁹



There are two chief morals to this story. The first is that the stock market often goes far wrong, and sometimes an alert and courageous investor can take advantage of its patent errors. The other is that most businesses change in character and quality over the years, sometime for the better, perhaps more often for the worse. The investor need not watch his companies' performance like a hawk; but he should give it a good hard look from time-to-time.

Let us return to our comparison between the holder of marketable shares and the man with an interest in a private business. We have said that the former has the option of considering himself merely as the part owner of the various businesses he has invested in, or as the holder of shares which are salable at any time he wishes at their quoted market price.

⁹ The more recent history of *A&P* is no different. At year-end 1999, its share price was \$27.88; at year-end 2000, \$7.00; a year later, \$23.78; at year end 2002, \$8.06. Although some accounting irregularities later came to light at *A&P*, it defies all logic to believe that the value of a relatively stable business like groceries could fall by three-fourths in one year, triple the next year, then drop by two-thirds the year after that.

But note this important fact: **The true investor scarcely ever is forced to sell his shares, and at all other times he is free to disregard the current price quotation.** He need pay attention to it and act upon it only the extent that it suits his book, and no more.¹⁰ Thus the investor who permits himself to be stampeded or unduly worried by unjustified market declines in his holdings is perversely transforming his basic advantage into a basic disadvantage. That man would be better off if his stocks had no market quotation at all, for he would then be spared the mental anguish caused him by *other persons'* mistakes of judgment.*

Incidentally, a widespread situation of this kind actually existed during the dark depression days of 1931-33. There was then a psychological advantage in owning business interests that had no quoted market. For example, people who owned first mortgages on real estate that continued to pay interest were able to tell themselves that their investments had kept their full value, there being no market quotations to indicate otherwise. On the other hand, many listed corporation bonds of even better quality and greater underlying strength suffered severe shrinkages in their market quotations, thus making their owners believe they were growing distinctly poorer. In reality the owners were better off with the listed securities, despite the low prices of these. For if they had wanted to, or were compelled to, they could at least have sold the issues—possibly to exchange them for even better bargain. Or they could just as logically have ignored the market's action as temporary and basically meaningless. But it is self-deception to tell yourself that you have suffered no shrinkage in value merely because your securities have no quoted market at all.

Returning to our *A&P* shareholder in 1938, we assert that as long as he held on to his shares he suffered no loss in their price decline, beyond what his own judgment may have told him was occasioned by shrinkage in the underlying or intrinsic value. If no such shrinkage had occurred, he had a right to expect that in due course the market quotation would return to the 1937 level or due course the market quotation or better—as in fact it did the following year. In this respect his position was at least as good as if he had owned an interest in a private business with no quoted market for its shares. For in that case, too, he might or might not have been justified in mentally lopping off part of the cost of his holdings because of the impact of the 1938 recession—depending on what had happened to his company.

Critics of the value approach to stock investment argue that listed common stocks cannot properly be regarded or appraised in the same way as an interest in a similar private enterprise, because the presence of an organized security market “injects into equity ownership the new and extremely important attribute of liquidity.” But what this liquidity really means is, first, that the investor has the benefit of the stock market's daily and changing appraisal of his holdings, for *whatever that appraisal may be worth*, and, second, that the investor is able to increase or decrease his investment at the market's daily figure—if he chooses. Thus the existence of a quoted market gives the investor *certain options* that he does not impose the current quotation on an investor who prefers to take his idea of value from some other source.

The Famous Parable “Mr. Market”

Let us close this section with something in the nature of a parable. Imagine that in some private business you own a small share that cost you \$1,000. One of your partners, named *Mr. Market*, is very obliging

¹⁰ Only to the extent that it suits his book” means “only to the extent that the price is favorable enough to justify selling the stock.” In traditional brokerage lingo, the “book” is an investor's ledger of holdings and trades.

*This may well be the single most important paragraph in Graham's entire book. In these 113 words Graham sums up his life-time of experience. You cannot read these words too often; they are like Kryptonite for bear markets. If you keep them close at hand and let them guide you throughout your investing life, you will survive whatever the markets throw at you.

indeed. Every day he tells you what he thinks your interest is worth and furthermore offers either to buy you out or to sell you an additional interest on that basis. Sometime his idea of value appears plausible and justified by business developments and prospects as you know them. Often, on the other hand, Mr. Market lets his enthusiasm or his fears run away with him, and the value he proposed seems to you a little short of silly.

If you are a prudent investor or a sensible businessman, will you let Mr. Market's daily communication determine your view of the value of a \$1,000 interest in the enterprise? Only in case you agree with him, or in case you want to trade with him. You may be happy to sell out to him when he quotes you a ridiculously high price and equally happy to buy from him when his price is low. But the rest of the time you will be wise to form your own ideas of the value of your holdings, based on full reports from the company about its operations and financial position.

The true investor is in that very position when he owns a listed common stock. He can take advantage of the daily market price or leave it alone, as dictated by his own judgment and inclination. He must take cognizance of important price movements, for others in his judgment will have nothing to work on. Conceivably they may give him a warning signal which he will do well to heed—this in plain English means that he is to sell his shares *because* the price had gone down, foreboding worse things to come. In our view such signals are misleading at least as often as they are helpful. **Basically, price fluctuations have only one significant meaning for the true investor. They provide him with an opportunity to buy wisely when prices fall sharply and to sell widely when they advance a great deal. At other times he will do better if he forgets about the stock market and pays attention to his dividend returns and to the operating results of his companies.**

SUMMARY

The most realistic distinction between the investor and the speculator is found in their attitude toward stock-market movements. The speculator's primary interest lies in anticipating and profiting from market fluctuations. The investor's primary interest lies in acquiring and holding suitable securities at suitable prices. Market movements are important to him in a practical sense, because they alternatively create low price levels at which he would be wise to buy and high price levels at which he certainly should refrain from buying and probably would be wise to sell.

It is far from certain that the typical investor should regularly hold off buying until low market levels appear, because this may involve a long wait, very likely the loss of income, and the possible missing of investment opportunities. On the whole, it may be better for the investor to do his stock buying whenever he has money to put in stocks, *except* when the general market level is much higher than can be justified by well-established standards of value. If he wants to be shrewd he can look for the ever-present bargain opportunities in individual securities.

Aside from forecasting the movements of the general market, much effort and ability are directed on Wall Street toward selecting stocks or industrial groups that in matter of price will "do better" than the rest over a fairly short period in the future. Logical as this endeavor may seem, we do not believe it is suited to the needs or temperament of the true investor—particularly since he would be competing with a large number of stock-market traders and first class financial analysts who are trying to do the same thing. As in all other activities that emphasize price movements first and underlying values second, the work of many intelligent minds constantly engaged in this field tends to be self-neutralizing and self-defeating over the years.

The investor with a portfolio of sound stocks should expect their prices to fluctuate and should neither be concerned by sizable declines nor become excited by sizable advances. He should always remember that market quotations are there for his convenience, either to be taken advantage of or to be ignored. He should never buy a stock because it has gone up or sell one because it has gone down. He would not be far wrong if this motto read more simply: “Never buy a stock immediately after a substantial rise or sell one immediately after a substantial drop.”

An Added Consideration

Something should be said about the significance of average market prices as a measure of managerial competence. The shareholder judges whether his own investment has been successful in terms of both dividends received and of the long-range trend of the average market value. The same criteria should be logically applied in the soundness of its attitude toward the owners of the business.

This statement may sound like a truism, but it needs to be emphasized. For as yet there is no accepted technique or approach by which management is brought to the bar of market opinion. On responsibility *of any kind* for what happens to the market value for their shares. It is true, of course, that they are not accountable for those *fluctuations* in price which, as we have been insisting, bear no relationship to underlying conditions and values. But it is only the lack of alertness and intelligence among the rank and file of shareholders that permits this immunity to extend to the entire realm of market quotations, including the permanent establishment of a depreciated and unsatisfactory price level. Good managements produce a good average market price, and bad managements produce bad market prices. (*Graham is discussing Corporate Governance and its effect on stock prices.*)

Fluctuations in Bond Prices

The investor should be aware that even though safety of its principal and interest may be unquestioned, a long-term bond could vary widely in market price in response to changes in interest rates. In Table 8-1 we give data for various years back to 1902 covering yields for high-grade corporate and tax free issues. As individual illustrations we add the price fluctuations of two representative railroad issues for a similar period. (These are the Atchison, Topeka & Santa Fe general mortgage 4s, due 1995, for generations one our premier noncallable bond issues, and the *Northern Pacific Ry. 3s, due 2047*—originally a 150 year maturity!—long a typical Baa-rated bond.)

Because of their inverse relationship, the low yields correspond to the high prices and vice versa. The decline in the *Northern Pacific 3s* in 1940 represented mainly doubts as to the safety of the issue. It is extraordinary that the price recovered to an all-time high in the next few years, and then lost two-thirds of its price chiefly because of the rise in general interest rates. There have been startling variations, as well, in the price of even the highest – grade bonds in the past forty years.

Note the bond prices do not fluctuate in the same (inverse) proportion as the calculated yields, because their fixed maturity value of 100% exerts a moderating influence. However, for very long maturities, as in our Northern Pacific example, price and yields change at close to the same rate.

Since 1964 record movements *in both directions* have taken place in the high-grade bond market. Taking “prime municipals” (tax-free) as an example, their yield more than doubled, from 3.2% in January 1965 to 7% in June 1970. Their price index declined, correspondingly, from 100.8 to 67.5 in mid-1970 the yields on high grade long-term bonds were higher than *at any time in the nearly 200 years of this country’s economic history.* *

*By what Graham called “the rule of opposites,” in 2002 the yields on long-term U.S. Treasury bonds hit their lowest levels since 1963. Since bond yields move inversely to prices, those low yields meant that prices had risen—making investors most eager to buy just as bonds were at their most expensive and as their future returns were almost guaranteed to be low. This provides another proof of Graham’s lesson that the intelligent investor must refuse to make decisions based on market fluctuations.

Table 8-1 Fluctuations in Bond Yields, and in Prices of Two Representative Bond Issues, 1902-1970

	Bond Yields			Bond Prices	
	S&P AAA Composite	S&P Municipals		A.T. & S.F. 4s, 1995	Nor. Pac. 3s, 2047
1902 low	4.31%	3.11%	1905 high	105.5	79
1920 high	6.40	5.28	1920 low	69	49.5
1928 low	4.53	3.90	1930 high	105	73
1932 high	5.52	5.27	1932 low	75	46.75
1946 low	2.44	1.45	1936 high	117.25	85.25
1970 high	8.44	7.06	1939-40 low	99.5	31.5
1971 close	7.14	5.35	1946 high	141	94.75
			1970 low	51	32.75
			1971 close	64	37.25

Twenty-five years earlier, just before our protracted bull market began, bond yields were at their lowest point in history; long-term municipals returned as little as 1%, and industrials gave 2.4% compared with the 4.5 to 5% formerly considered “normal.” Those of us with a long experience on Wall Street had seen Newton’s law of “action and reaction, equal and opposite” work itself out repeatedly in the stock market—most noteworthy example being the rise in the DJIA from 64 in 1921 to 381 in 1929, followed by a record collapse to 41 in 1932. But this time the widest pendulum swings took place in the usually staid and slow-moving array of high-grade bond prices and yields. Moral: Nothing imported on Wall Street can be counted on to occur exactly in the same way as it happened before. This represents the first half of our favorite dictum: “The more it changes, the more it is the same thing.”

If it is virtually impossible to make worthwhile predictions about the price movements of stocks, it is completely impossible to do so for bonds. In the old days, at least, one could often find a useful clue to the coming end of a full or bear market by studying the prior action of bonds, but no similar clues were given to a coming change in interest rates and bond prices. Hence the investor must choose between long-term and short term bond investments on the basis chiefly of his personal preferences. If he wants to be certain that the market values will not decrease, his best choices are probably U.S. savings bonds, Series E or H, which were described above, p. 93. Either issue will give him (her) a 5% yield (after the first year), the Series E for up to 5 years, the Series H for up to ten years, with a guaranteed resale value of cost or better.

If the investor wants the 7.5% now available on good long term corporate bonds, or the 5.3% on tax-free municipals, he must be prepared to see them fluctuate in price. Banks and insurance companies have the privilege of valuing high-rated bonds of this type on the mathematical basis of “amortized cost,” which disregards market prices; it would not be a bad idea for the individual investor to do something similar.

The price fluctuations of convertible bonds and preferred stocks are the resultant of three different factors: (1) variations in the price of the related common stock, (2) variations in the credit standing of the

company, and (3) variations in general interest rates. A good many of the convertible issues have been sold by companies that have credit rating well below the best.¹¹ Some of these were badly affected by the financial squeeze in 1970. As a result, convertible issues as a whole have been subjected to triply unsettling influences in recent years, and price variations have been unusually wide. In the typical case, therefore, the investor would delude himself if he expected to find in convertible issues that ideal combination of the safety of a high-grade bond and price protection plus a chance to benefit from an advance in the price of the commons.

This may be a good place to make a suggestion about the “long-term bond of the future.” Why should not the effects of changing interest rates be divided on some practical and equitable basis between the borrower and the lender? One possibility would be to sell long-term bonds with interest payments that vary with an appropriate index of the going rate. The main results of such an arrangement would be: (1) the investor’s bond would always have a principal value of about 100, if the company maintains its credit rating, but the interest received will vary, say, with the rate offered on conventional new issues; (2) the corporation would have the advantages of long-term debt—being spared problems and costs of frequent renewals of refinancing—but its interest costs would change from year-to-year.¹²

Over the past decade the bond investor has been confronted by an increasingly serious dilemma: Shall he choose complete stability of principal value, but with varying and usually low (short-term) interest rates? Or shall he choose a fixed-interest income, with considerable variations (usually downward, it seems) in his principal value? It would be good for most investors if they could compromise between these extremes, and be assured that neither their interest return nor their principal value will fall below a stated minimum over, say, a 20 year period. This could be arranged, without great difficulty, in an appropriate bond contract of a new form. Important note: In effect the U.S. government has done a similar thing in its combination of the original savings-bonds contracts with their extensions at higher interest rates. The suggestion we make here would cover a longer fixed investment period than the savings bonds, and would introduce more flexibility in the interest-rate provisions.*

*Treasury Inflation Protected Securities, or TIPS, are a new and improved version of what Graham is suggesting here.

It is hardly worthwhile to talk about nonconvertible preferred stocks, since their special tax status makes the safe ones much more desirable holdings by corporations—e.g., insurance companies—than by individuals. The poorer-quality ones almost always fluctuate over a wide range, percentagewise, not too differently from common stocks. We can offer no other useful remarks about them.

Summary Notes

Chapter 8 – The Investor and Market Fluctuations

Right off the bat, Graham argues that attempting to play market timing games is a fool’s game. One can never predict true market bottoms or peaks in advance – they can only be seen through hindsight. Graham also points out that some of the “markers” of a bottoming-out market won’t necessarily hold

¹¹ The top three rating for bonds and preferred stocks are Aaa, Aa, and A used by Moody’s and AAA, AA, A by Standard and Poor’s. There are others, going down to D.

¹² This idea has already had some adoptions in Europe—e.g., by the state-owned Italian electric-energy concern on its “guaranteed floating rate loan notes,” due 1980. In June 1971, it advertised in New York that the annual rate of interest paid thereon for the next six months would be 8%

One such flexible arrangement was incorporated in the *Toronto-Dominion Bank’s 7% - 8% debentures*, “due 1991,” offered in June 1971. The bonds pay 7% to July 1976 and 8% thereafter, but the holder has the option to receive his principal in July 1976.

true for the next bottom, and that same effect holds true for peaks as well. In a nutshell, **don't bother trying to time things based on what you think the overall stock market is going to do.**

However, for individual stocks, Graham thinks that timing can actually work well. In this case, though, Graham is referring to detailed study of a company: knowing that the company is sound, knowing how it compares to the competition, and knowing what a reasonable value of the stock should be. Once you've identified a good, quality company, then you should keep your eye out for the right price on that stock – when it goes below a certain number without any change in the nature of the company itself, then you buy.

This, in essence, is the key of the “buy low, sell high” idea. You don't try to time the market at all. Instead, you merely seek out bargains in the things that you know, and you wait for them patiently.

What about selling? For the most part, Graham encourages people not to sell into fluctuations, either, and instead hold onto those steady, dividend-paying stocks. The only time Graham seems to encourage selling based on market conditions is if the prices you would get today are significantly out of whack with the long term history of the stock. For example, if the stock has pretty consistently held near a 12 P/E ratio, but is suddenly selling for 20, it's probably a good time to sell it.

What's the end result of all of this? **A person who diligently follows Graham's advice is going to almost always be doing the opposite of what everyone else is doing.** When the bull market is roaring and everyone is buying, you're likely to be holding or selling stocks. When the bear market is afoot and everyone is selling, you're likely to buy up those value stocks.

What about bonds? Graham generally advocates buying bonds when there are no values to be had in the stock market. In other words, if you have money to invest and the stock market is roaring like a freight train, Graham suggests increasing the portion of bonds in your portfolio. Similarly, when the market is down, one may want to decrease the portion of their portfolio that is in bonds if there are appropriate value stocks out there for purchase. Again, it's the opposite of what seems to be the convention on Wall Street.

Commentary on Chapter 8

Zweig spends most of the commentary ruminating on Graham's “Mr. Market.” For those unfamiliar, Graham often liked to imagine the stock market as a person he called Mr. Market. This individual was essentially a manic depressive – when the stock

market was rocketing, he'd offer to buy or sell you stocks at a price way beyond what the company was worth, but when the stock market was down, he'd only buy or sell at prices far below what the company should fetch. Graham argued that the way to deal with Mr. Market was patience – wait until he quoted you prices you liked.

Zweig uses several modern examples of irrational exuberance to show this “Mr. Market” phenomenon at work – and the dot-com boom certainly gave us a lot of examples. Zweig discusses Inktomi, which went from a peak well over \$200 in 2000 to being worth a quarter a share in 2002, even though the fundamentals of the business actually *improved* over that time frame. In 2002, it was a bargain, and eventually Yahoo bought the company lock, stock, and barrel for roughly seven times that much.

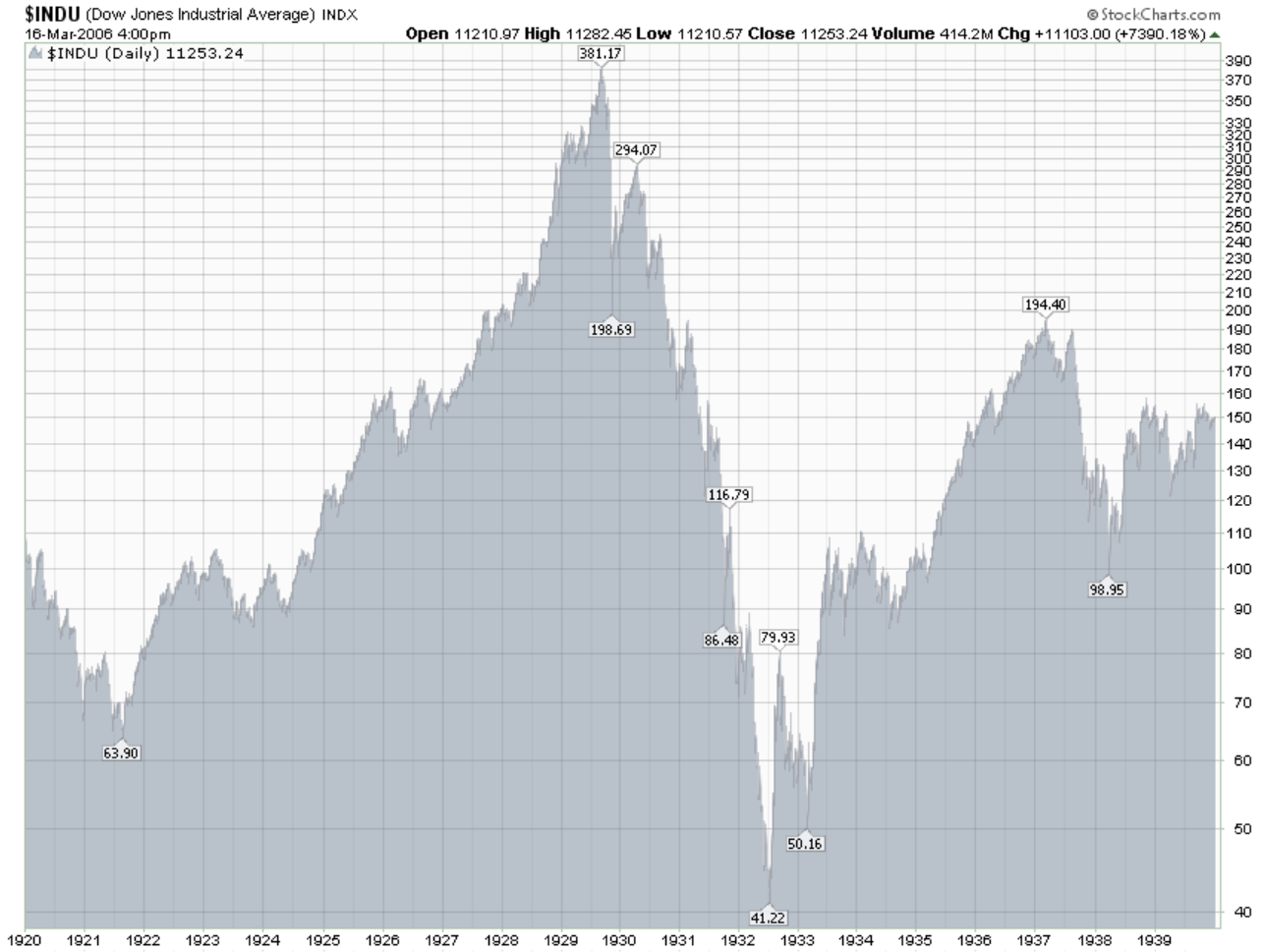
So how can you avoid situations like Inktomi? Know what you're buying, be patient, and only buy when the getting is good. Not only does this ensure that you get actual bargains, it also reduces the brokerage fees that a more frenetic buyer and seller would accumulate.

Zweig picks out a great quote from Graham that I think bears repeating here.

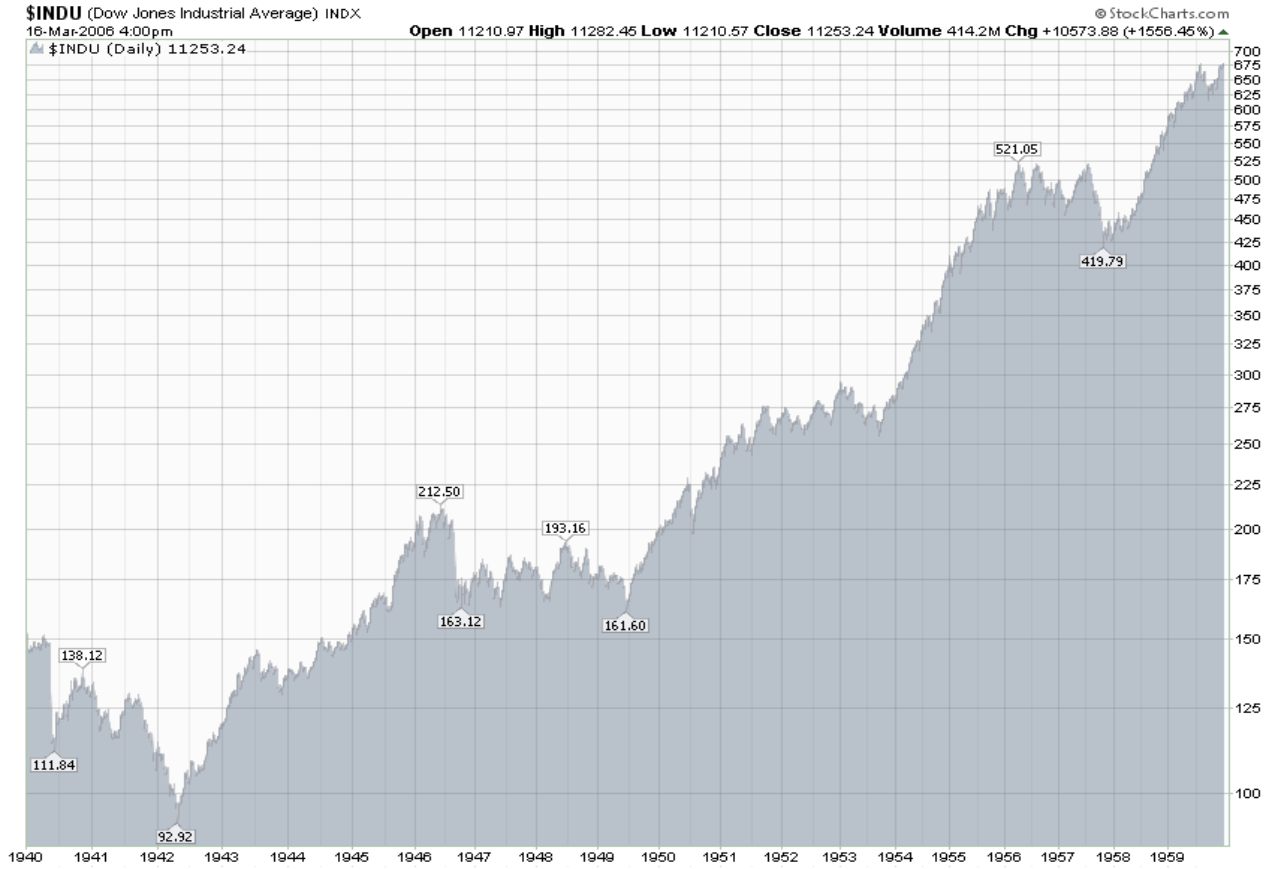
The investor who permits himself to be stampeded or unduly worried by unjustified market declines in his holdings is perversely transforming his basic advantage into a basic disadvantage.

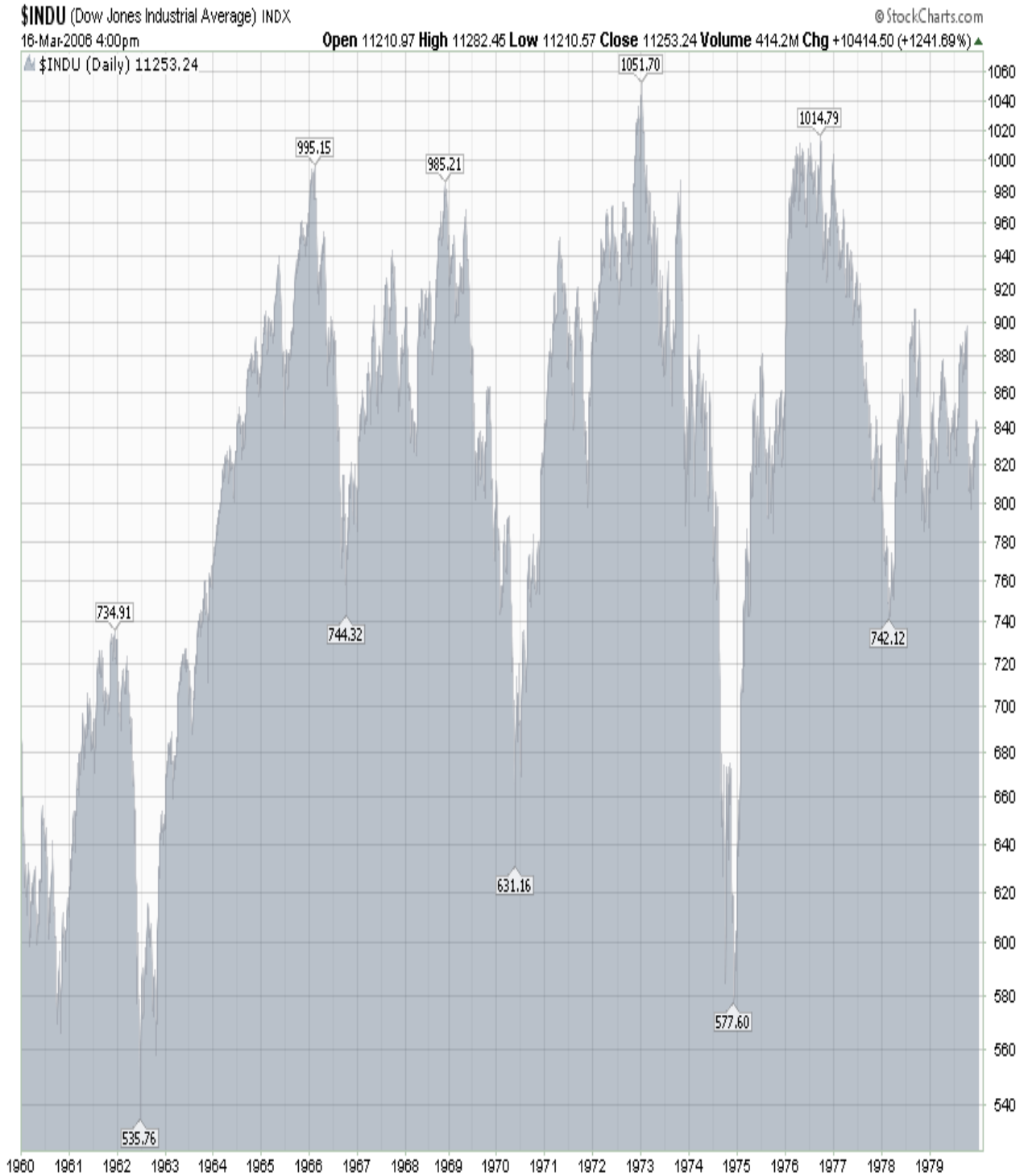
That, right there, is most of the lesson of this chapter in one sentence.

Charts below from 1920 until end 1979—60 years—a business life-time for Benjamin Graham.



Mr. Market by Benjamin Graham (Chapter 8 from The Intelligent Investor)





The future of security prices is never predictable. Since I cannot predict the behavior of the markets, you must learn how to predict and control your own emotions.

It is no difficult trick to bring a great deal of energy, study, and native ability into Wall Street and to end up with losses instead of profits. These virtues, if channeled in the wrong directions, become indistinguishable from handicaps. Thus it is most essential that the enterprising investor start with a clear conception as to which courses of action offer reasonable chances of success and which do not.

Commentary on Chapter 8 by Jason Zweig

Mr. Market's job is to provide you with prices; your job as an intelligent investor is to decide whether it is to your advantage to act on them. Ironically, investors seem to become more attracted to stocks the higher in prices they go; this is the opposite to their reaction in the grocery store when the price of their favorite fruit goes up in price.

One of Graham's most powerful insights is this: "The investor who permits himself to be stampeded or unduly worried by unjustified market declines in his holdings is perversely transforming his basic advantage into a basic disadvantage."

What does Graham mean by those words "basic advantage"? He means that the intelligent individual investor has the full freedom to choose whether or not to follow Mr. Market. You have the luxury of being able to think for yourself.

When asked what keeps most individual investors from succeeding, Graham had a concise answer: "The primary cause of failure is that they pay too much attention to what the stock market is doing currently."

Intelligent Investing is about **controlling the controllable**. You can't control whether the stocks or funds you buy will outperform the market today or next months, but you can control:

1. **Your brokerage costs**, by trading rarely, patiently and cheaply
2. **Your ownership costs**, by refusing to buy mutual funds with excessive annual expenses.
3. **Your expectations**, by using realism, not fantasy, to forecast your returns
4. **You risk**, by deciding how much of your total assets to put at hazard in the stock market, by diversifying, and by rebalancing.
5. **Your tax bills**, by holding stocks for at least one year and, whenever possible, for at least five years, to lower your capital-gains liability.
6. And, most of all, **your own behavior**.

Investing isn't about beating others at their game. It is **about controlling yourself at your own game**. Don't be your own worst enemy.

Inefficient Markets Are Still Hard to Beat by Jason Zweig WSJ-Jan. 08, 2010

As millions of smart buyers and sellers compete to maximize their wealth, they update stock prices with all the relevant information that is available. That is what an "efficient market" means. It presumes that the market price is the best estimate of a stock's intrinsic value, or what all its current and future cash flows are worth.

But the fact that the market price is the best available estimate doesn't mean that the market price is right.

In 1974, the great financial analyst Ben Graham wryly described the efficient market hypothesis as a theory that “could have great practical importance if it coincided with reality.” Mr. Graham marveled at how Avon Products, which traded at \$140 a share in 1973, had sunk below \$20 in 1974: “I deny emphatically that because the market has all the information it needs to establish a correct price the prices it actually registers are in fact correct.”

Mr. Graham proposed that the price of every stock consists of two elements. One, “**investment value**,” measures the worth of all the cash a company will generate now and in the future. The other, the “**speculative element**,” is driven by sentiment and emotion: hope and greed and thrill-seeking in bull markets, fear and regret and revulsion in bear markets.

The market is quite efficient at processing the information that determines investment value. But predicting the changing emotions of tens of millions of people is no easy task. So the speculative element in pricing is prone to huge and rapid swings that can swamp investment value. But predicting the changing emotions of tens of millions of people is no easy task. So the speculative element in pricing is prone to huge and rapid swings that can swamp investment value.

Thus, it is important not to draw the wrong conclusions from the market’s inefficiency. “The evidence suggests that the market is not rational,” says Meir Statman, a finance professor at Santa Clara University in California. “But watch out for the voice of the devil inside of you saying that therefore it must be easy to beat the market.”

For one thing, hindsight blinds you to the truth. Last March (2009), in the bowels of global financial panic, it was far from clear the Bank of America would survive and that the stock was dirt cheap.

In the short run at least, the herd behavior of the pros makes it even harder for you to take a winning bet against the “speculative element” in a stock’s price. It takes superhuman courage to buy into a hurricane of selling.

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Commentary on the difference between speculating and investing by Mason Hawkins of Southeastern Capital Management (OID August 31, 2008):

You know, Benjamin Graham probably contributed the most value to intelligent investing when he talked about the recurrent large swings in security prices. He talked about the difference between trying to capture those big swings through the methodology of pricing versus trying to time the market.

By pricing he meant you could move forward with your investment dollar if the price sold at a big discount to a conservative appraisal. You could put your money out, it has \$2 of value for a dollar you pay, it is secure, and as the economic scales of justice begin to weigh it properly, as Staley said earlier, you would make a very healthy return with minimal risk.

If you endeavor to put your capital out by timing, or in his words, by “trying to forecast”, it is a very problematic undertaking—and even the best forecasters are probably no better than 50%, So it is like flipping a coin. One delves in the realm of speculation, the other is, by definition, investing—putting capital out knowing you are going to get it back with a reasonable return.

END

How to handle an over-valued market: a value perspective.

by AK on April 16, 2011

in Investing

I re-read *The Intelligent Investor: A Book of Practical Counsel* recently and am very glad I did.
[1]

Turns out I had become quite the speculator.

Not because I traded a lot.

No: I was concerned about the huge run up in the market since March 2009 and hesitant to buy anything.

Then I got to chapter 8 again: “The Investor and Market Fluctuations.”

Here are the key paragraphs that solved my dilemma. Maybe they can help you.

“But note this important fact: The true investor scarcely ever *is forced to sell* his shares, and at all other times he is free to disregard the current price quotation. He need pay attention to it and act upon it only to the extent that it suits his book, and no more. Thus the investor who permits himself to be stampeded or unduly worried by unjustified market declines in his holdings is perversely transforming his basic advantage into a basic disadvantage. That man would be better off if his stocks had no market quotation at all, for he would then be spared the mental anguish caused him by *other persons’* mistakes of judgment.” [2]

If I may I would add that one shouldn’t be worried by unjustified market advances either. But the point is clear: if you never, or “scarcely ever,” have to sell your shares what difference does the current market price make as long as the purchase price of the individual stock you buy is reasonable measured against conservative valuation standards of its intrinsic value?

As long as you’re not leveraged or 100% invested with no ability to raise cash on short notice *no* price movement should cause you much trouble:

1. If the price goes up great
2. If it goes down even better: buy more
3. If it stays the same so what? You have a solid business at a decent price (that’s at worst; at best you have a solid business at a price well below its’ intrinsic value)

But despite all this philosophizing let’s say you’re still concerned about the general level of the market (i.e. it’s over-valued).

What now?

Read this:

“The most realistic distinction between the investor and the speculator is found in their attitude toward stock-market movements. The speculator’s primary interest lies in anticipating and profiting from market fluctuations. The investor’s primary interest lies in acquiring and holding suitable securities at suitable prices. Market movements are important to him in a practical sense, because they alternately create low price levels at which he would be wise to buy and high price levels at which he certainly should refrain from buying and probably would be wise to sell.

It is far from certain that the typical investor should regularly hold off buying until low market levels appear, because this may involve a long wait, very likely the loss of income, and the possible missing of investment opportunities. On the whole it may be better for the investor to do his stock buying whenever he has money to put in stocks, *except* when the general market level is much higher than can be justified by well-established standards of value. If he wants to be shrewd he can look for the ever-present bargain opportunities in individual securities.” [3]

Read that last line again.

That’s right: the “ever-present bargain opportunities in individual securities.”

So even at high market levels keep looking for bargains. Yes they may be few and far between but a high market price level doesn’t, or shouldn’t, automatically prevent you from at least looking for good investments in individual companies.

Unless of course the general market level is your prime concern in which case you may be more of a speculator than you thought.

Those 2 points, an investor is scarcely ever forced to sell his shares and bargains are ever-present in individual securities helped me overcome my paralysis and get back to work even though I do, as of this post date, think the market in general is over-valued.

Here’s something I wrote to keep these crucial points front and center and avoid fixating on market movements:

“Since bargains are always present, I never have to sell my shares, value always comes first and all prices are only a practical consideration, I can buy good values at *any* time and should not wait until ‘the market comes around’ to what I consider to be an appropriate price level. As an investor *whatever* happens to prices is fine: if they go up great; if they go down even better; if they stay the same so what. Never allow speculation about price movements (market especially but also the individual security) to determine any investment decision. Don’t wait for low market levels to buy because you may miss a bull market or possible income. Don’t fear a bear market because, unless you are leveraged or 100% invested and unable to come up with

additional cash, you will get even better values. Only avoid buying if values cannot be found or the market level is extremely high and permanent capital loss is highly likely or there is absolutely no margin of safety to be had in the purchase price.”

Good luck and I would truly appreciate your feedback and comments on this one.

[1] Benjamin Graham, *The Intelligent Investor: A Book of Practical Counsel*, Revised Edition (New York: Harper Collins, 2003), pp. 188-212.

[2] Ibid, p. 203.

[3] Ibid, pp. 205-06.

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Chapter 20: “Margin of Safety” as the Central Concept of Investment by Benjamin Graham

In the old legend the wise men finally boiled down the history of mortal affairs into the single phrase, “This too will pass.” Confronted with a like challenge to distill the secret of sound investment into three words, we venture the motto, **MARGIN OF SAFETY**.¹ This is the thread that rounds through all the preceding discussion of investment policy--often explicitly, sometimes in a less direct fashion. Let us now, briefly, to trace that idea in a connected argument.

All experienced investors recognize that the margin of safety concept is essential to the choice of sound bonds and preferred stocks. For example, a railroad should have earned its total fixed charges better than five times (before income tax), taking a period of years, for its bonds to qualify as investment-grade issues. This past ability to earn in excess of interest requirements constitutes the margin of safety that is counted on to protect the investor against loss or discomfiture in the event of some future decline in net income. (The margin of above charges may be stated in other ways—for example, in the percentage by which revenues or profits may decline before the balance after interest disappears—but the underlying idea remains the same.)

The bond investor does not expect future average earnings to work out the same as the in the past; if he were sure of that, the margin demanded might be small. Nor does he rely to any controlling in his judgment as to whether future earnings will be materially better or poorer than in the past, if he did that, he would have to measure his margin in terms of a carefully *projected* income account, instead of emphasizing the margin shown in the *past* record. Here the function of the margin of safety is, in essence, that of rendering unnecessary an accurate estimate of the future. If the margin is a large one, then it is enough to assume that future earnings will not fall far below those of the past in order for an investor to feel sufficiently protected against the vicissitudes of time.

The margin of safety for bonds may be calculated, alternatively, by comparing the **total value of the enterprise**² with the amount of debt. (Ditto for preferred stock issue) If the business owes \$10 million and is fairly worth \$30 million, there is room for a shrinkage of two-thirds in value—at least theoretically—before the bondholders will suffer loss. The amount of this extra value, or “cushion,” above the debt may be approximated by using the average market price of the junior stock issues over a period of years. Since average stock prices are generally related to average earning power, the margin of “enterprise value” over debt and the margin of earnings over charges will in most cases yield similar results.

So much for the margin-of-safety concept as applied to “fixed-value investments.” Can it be carried over into the field of common stocks? Yes, but with some necessary modifications.

There are instances where a common stock may be considered sound because it enjoys a margin of safety as large as that of a good bond. This will occur, for example, when a company has outstanding only

¹ Buffett has been quoted as saying these three words (Margin of Safety) are the most important concept in investing. Your mindset is important. The investor allows for being wrong; for having a margin of error built into his/her process. Don't drive a 9,000 pound truck over a bridge built to hold 10,000 pounds, drive a 5,000 pound truck.

² Graham means total enterprise value or (fully diluted shares outstanding x price) plus market value of all debt minus excess cash not used for operations.

common stock that under depression conditions is selling for less than the amount of bonds that could safely be issued against it property and earning power³. That was the position of a host of strongly financed industrial companies at the low price levels of 1932-33. In such instances the investor can obtain the margin of safety associated with a bond, *plus* all the chances of larger income and principal appreciation inherent in a common stock. (The only thing he lacks is the legal power to insist on dividend payments “or else”—but this is a small drawback as compared with his advantages.) Common stocks bought under such circumstances will supply an ideal, through infrequent, combination of safety and profit opportunity. As a quite recent example of this condition, let us mention once more *National Presto Industries Stock*, which sold of a total enterprise value of \$443 million in 1972. With its \$16 million of recent earnings before taxes the company could easily have supported this amount of bonds.

In the ordinary common stock, brought for investment under normal conditions, the margin of safety lies in an expected earning power considerably above the going rate for bonds. In former editions we elucidated these points with the following figures:

Assume in a typical case that the earning power is 9% on the price and that the bond rate is 4%; then the stock buyer will have an average annual margin of 5% accruing in his favor. Some of the excess is paid to him in the dividend rate; even though spent by him, it enters into his overall investment result. The undistributed balance is reinvested in the business for his account.

In many cases such reinvested earnings fail to add commensurately to the earning power and value of his stock. (That is why the market has a stubborn habit of valuing earnings disbursed in dividends more generously than the portion retained in the business.)* But, if the picture is viewed as a whole, there is a reasonably close connection between the growth of corporate surpluses through reinvested earnings and the growth of corporate values.

Over a ten-year period the typical excess of stock earning power over bond interest may aggregate 450% of the price paid. This figure is sufficient to provide a very real margin of safety—which, under favorable conditions, will prevent or minimize a loss. **If such a margin is present in each of a diversified list of twenty or more stocks, the probability of a favorable result under “fairly normal conditions” becomes very large.** That is why the policy of investing in representative common stocks does not require high qualities of insight and foresight to work out successfully. If the purchases are made at the average level of the market over a span of years, the prices paid should carry with them assurance of an adequate margin of safety. The danger to investors lies in concentrating their purchase in the upper levels of the market, or in buying non-representative common stocks that carry more than average risk of diminished earning power.

As we see it, the whole problem of common-stock investment under 1972 conditions lies in the fact that “in a typical case” the earning power is now much less than 9% on the price paid.⁴ Let us assume that by concentrating somewhat on the low-multiplier issues among the large companies a defensive investor may now acquire equities at 12 times recent earnings—i.e., with an earnings return of 8.33% on cost. He may obtain a dividend yield of about 4%, and he will have **4.33% of his cost reinvested in the business**

³ “Earning power” is Graham’s term for a company’s potential profits or, as he puts it, the amount that a firm “might be expected to earn year-after-year if the business conditions prevailing during the period were to continue unchanged” (*Security Analysis, 1934 ed.*, p 354). Some of his lectures make it clear that Graham intended the term to cover periods of five years or more. You can crudely approximate a company’s earning power per share by taking the inverse of its P/E ratio; a stock with a P/E ratio of 11 can be said to have earning power of 9 or 1 divided by 11.

⁴ Graham elegantly summarized the discussion that follows in a lecture he gave in 1972: “The margin of safety is the difference between the percentage rate of the earnings on the stock at the price you pay for it and the rate of interest on bonds, and that margin of safety is the difference which would absorb unsatisfactory developments. At the time the 1965 edition of the *Intelligent Investor* was written, the typical stock was selling at 11 times earnings, giving about 9% return as against 4% on bonds. In that case you had a margin of safety of over 100 per cent. Now in 1972 there is no difference between the earnings rate on stocks and the interest rate on stocks and I say there is no margin of safety...you have a negative margin of safety on stocks....

for his account. On this basis, the excess of stock earning power over bond interest over a ten-year basis would still be too small to constitute an adequate margin of safety. For that reason we felt that there are real risks now even in a diversified list of sound common stocks. The risks may be fully offset by the profit possibilities of the list; and indeed the investor may have no choice but to incur them—for otherwise he may run an even greater risk of holding only fixed claims payable in steadily depreciating dollars. Nonetheless the investor would do well to recognize, and to accept as philosophically as he can, that the old package of good profit possibilities combined with small ultimate risk is no longer available to him.

However, the risk of paying too high a price for good quality stocks—while a real one—is not the chief hazard confronting the average buyer of securities. **Observation over many years has taught us that the chief losses to investors come from the purchase of low quality securities at time of favorable business conditions.** The purchasers view the current good earnings as equivalent to “Earning Power” and assume that prosperity is synonymous with safety. It is in those years that bonds and preferred stocks of inferior grade can be sold to the public at a price around par, because they carry a little higher income return or a deceptively attractive conversion privilege. It is then also, that common stocks of obscure companies can be floated at prices far above the tangible investment, on the strength of two or three years of excellent growth. (*Graham speaks of the growth illusion and the dangers of paying a price for a franchise—paying over asset or replacement value—because investors confuse the continuation of high earnings during rosy economic times with the average earnings power of the company. For example, paying peak earnings for a cyclical company is usually a disaster.*)

These securities do not offer an adequate margin of safety in any admissible sense of the term. Coverage of interest charges and preferred dividends must be tested over a number of years, including preferably a period of subnormal business such as in 1970-71. The same is ordinarily true of common-stock earnings if they are to qualify as indicators of earning power. Thus it follows that most of the fair-weather investments, acquired at fair-weather prices, are destined to suffer disturbing price declines when the horizon clouds over—and often sooner than that. Nor can the investor count with confidence on an eventual recovery—although this does come about in some proportion of the cases—for he has never had a real safety margin to tide him through adversity.

The philosophy of investment in growth stocks parallels in part and in part contravenes the margin-of-safety principle. The **growth stock buyer** relies on an expected earning power that is greater than the average shown in the past. Thus he may be said to substitute these expected earnings for the past record in calculating carefully estimated future earnings should be a less reliable guide than the bare record of the past; in fact, security analysis is coming more and more to prefer a competently executed evaluation of the future. Thus the growth-stock approach may supply as dependable a margin of safety as is found in the ordinary investment provided the calculation of the future is conservatively made, and provided it shows a satisfactory margin in relation to the price paid. (*This concept is critical for growth investors.*)

The danger in a growth-stock program lies precisely here. For such favored issues the market has a tendency to set prices that will not be adequately protected by a conservative projection of estimates, when they differ from past performance, must err at least slightly on the side of understatement. The margin of safety is always dependent on the price paid. It will be large at one price, small at some higher price, nonexistent at some still higher price. If, as we suggest, the average market level of most growth stocks is too high to provide an adequate margin of safety for the buyer, then a simple technique of diversified buying in this field may not work out satisfactorily. A special degree of foresight and

judgment will be needed, in order that wise individual selections may overcome the hazards inherent in the customary market level of such issues as a whole.

The margin of safety idea becomes much more evident when we apply it to the field of undervalued or bargain securities. We have here, by definition, a favorable difference between price on the one hand and indicated or appraised value on the other. That difference is the safety margin. It is available for absorbing the effect of miscalculations or worse than average luck. The buyer of bargain issues places particular emphasis on the ability of the investment to withstand adverse developments. For in most such cases he has no real enthusiasm about the company's prospects. True, if the prospects are definitely bad the investor will prefer to avoid the security no matter how low the price. But the field of undervalued issues is drawn from the many concerns—perhaps a majority of the total—for which the future appears neither distinctly promising nor distinctly unpromising. If these are bought on a bargain basis, even a moderate decline in the earning power need not prevent the investment from showing satisfactory results. The margin of safety will then have served its proper purpose.

THEORY OF DIVERSIFICATION

There is a close logical connection between the concept of safety margin and the principle of diversification. One is correlative with the other. Even with a margin in the investor's favor, an individual security may work out badly. For the margin guarantees only that he has a better chance for profit than for loss—not that loss is impossible. But as the number of such commitments is increased the more certain does it become that the aggregate of the profits will exceed the aggregate of the losses. That is the simple basis of the insurance-underwriting business.

Diversification is an established tenet of **conservative** investment. By accepting it so universally, investors are really demonstrating their acceptance of the margin-of-safety principle, to which diversification is the companion. This point may be made more colorful by a reference to the arithmetic of roulette. If a man bets \$1 on a single number, he is paid \$35 profit when he wins—but the chances are 37 to 1 that he will lose. He has a “*negative* margin of safety.” In his case diversification is foolish. The more numbers he bets on, the smaller his chance of ending with a profit. If he regularly bets \$1 on every number (including 0 and 00), he is certain to lose \$2 on each turn of the wheel. But suppose the winner received \$39 profit instead of \$35. Then he would have a small but important margin of safety. Therefore, the more numbers he wagers on, the better his chance of gain. And he could be certain of winning \$2 on every spin by simply betting \$1 each on all the numbers. (Incidentally, the two examples given actually describe the respective positions of the player and proprietor of a wheel with a 0 and 00.)⁵

A CRITERION OF INVESTMENT VERSUS SPECULATION

Since there is no single definition of investment in general acceptance, authorities have the right to define it pretty much as they please. Many of them deny that there is any useful or dependable difference

⁵ In “American” roulette, most wheels include a 0 and 00 along with numbers 1 through 36, for a total of 38 slots. The casino offers a maximum payout of 35 to 1. What if you bet \$1 on every number? Since only one slot can be the one into which the ball drops, you would win \$25 on that slot, but lose \$1 on each of your other 37 slots, for a net loss of \$2. That \$2 difference (or a 5.26% spread on your total \$38 bet) is the casino's “house advantage,” ensuring that, on average, roulette players will always lose more than they win. Just as it is in the roulette player's interest to bet as seldom as possible, it is in the casino's interest to keep the roulette wheel spinning. Likewise, the intelligent investor should seek to maximize the number of holdings that offer “a better chance for profit than for loss.” For most investors, diversification is the simplest and cheapest way to widen your margin of safety.

between the concepts of investment and of speculation. We think this skepticism is unnecessary and harmful. It is injurious because it lends encouragement to the innate leaning of many people toward the excitement and hazards of stock-market speculation. We suggest that the margin of safety concept may be used to advantage as the touchstone to distinguish an investment operation from a speculative one.

Probably most speculators believe they have the odds in their favor when they take their chances, and therefore they may lay claim to a safety margin in their proceedings. Each one has the feeling that the time is propitious for his purchase, or that his skill is superior to the crowd's, or that his adviser or system is trustworthy. But such claims are unconvincing. They rest on subjective judgment, unsupported by any body of favorable evidence or any conclusive line of reasoning. We greatly doubt whether the man who stakes money on his view that the market is heading up or down can ever be said to be protected by a margin of safety in any useful sense of the phrase.

By contrast, the investor's concept of the margin of safety—as developed earlier in this chapter—rests upon simple and definite arithmetical reasoning from statistical data. We believe, also that it is well supported by practical investment experience. There is no guarantee that this fundamental quantitative approach will continue to show favorable results under the unknown conditions of the future. But, equally, there is no valid reason for pessimism on this score.

Thus, in sum, we say that to have a true investment there must be present a true margin of safety. And a true margin of safety is one that can be demonstrated by figures, by persuasive reasoning, and by reference to a body of actual experience.

EXTENSION OF THE CONCEPT OF INVESTMENT

To complete our discussion of the margin of safety principle we must now make a further distinction between conventional and unconventional investments. Conventional investments are appropriate for the typical portfolio. Under this heading have always come United States government issues and high grade, dividend paying common stocks. We have added state and municipal bonds for those who will benefit sufficiently by their tax-exempt features. Also included are first-quality corporate bonds when, as now, they can be bought to yield sufficiently more than United States saving bonds.

Unconventional investments are those that are suitable only for the enterprising investor. They cover a wide range. The broadest category is that of undervalued common stocks of secondary companies, which we recommend for purchase when they can be bought at two thirds or less of their indicated value. Besides these, there is often a wide choice of medium grade corporate bonds and preferred stocks when they are selling at such depressed prices as to be obtainable also at a considerable discount from their apparent value. In these cases the average investor would be inclined to call the securities speculative, because in his mind their lack of a first-quality rating is synonymous with a lack of investment merit.

It is our argument that a sufficiently low price can turn a security of mediocre quality into a sound investment opportunity provided that the buyer is informed and experienced and that he create a substantial margin of safety, the security thereby meets out criterion of investment. Our favorite supporting illustration is taken from the field of real estate bonds. In the 1920s, billions of dollars' worth of these issues were sold past par and widely recommended as sound investments. A large proportion had so little margin of value over debt as to be in fact highly speculative in character. In the depression of the 1930's an enormous quantity of these bonds defaulted their interest, and their price collapsed—in some case below 10 cents on the dollar. At that stage the same advisors who had recommended them at par as

safe investments were rejecting them as paper of the most speculative and unattractive type. But as a matter of fact the price depreciation of about 90% made many of these securities exceedingly attractive and reasonable safe—for the stated values behind them were four or five times the market quotation*

*Graham is saying that there is no such thing as a good or bad stock; there are only cheap stocks and expensive stocks. Even the best company becomes a “sell” when its stock price goes too high, while the worse company is worth buying if its stock goes low enough. (*James Grant of Grant’s Interest Rates Observer says there are no bad bonds just bad bond prices*). A company may be a great investment when its stock price is depressed relative to its normal earnings power and asset values while becoming a terrible investment at another high price of its stock. Look at the lesson of the “Nifty Fifty” from the Go-Go years of the late 1960s and early 1970s. Those high quality companies like Avon, IBM, P&G became one decision stocks to be held forever even at absurdly high prices. This concept was crushed during the bear market of 1973/1974 when stock prices of those companies declined 50% to 80%.

The fact that the purchase of these bonds actually resulted in what is generally called “a large speculative profit” did not prevent them from having true investment qualities at their low prices. The “speculative” profit was the purchasers’ reward for having made an unusually shrewd investment. They could properly be called investment opportunities, since a careful analysis would have shown that the excess of value over price provided a large margin of safety. Thus the very class of “fair weather investment” which we stated above is a chief source of serious loss to naïve security buyers is likely to afford many sound profit opportunities to the sophisticated operator who may buy them later at pretty much his own price. (The very people who considered technology and telecommunication stocks a “sure thing” in late 1999 and early 2000, when they were hellishly overpriced, shunned them as “too risky: in 2002—even though, in Graham’s exact words from an earlier period, “the price depreciation of about 90% made many of these securities exceedingly attractive and reasonably safe. Similarly, Wall Street’s analysts have always tended to call a stock a “strong buy” when its price is high, and to label it a “sell” after its price has fallen—the exact opposite of what Graham and simple common sense would dictate. As he does throughout the book, Graham is distinguishing speculation—or buying on the hope that a stock’s price will keep going up—from investing, or buying on the basis of what the underlying business is worth.

The whole field of “**special situations**” would come under our definition of investment operations, because the purchase is always predicted on a thoroughgoing analysis that promises a larger realization than the price paid. Again there are risk factors in each individual case, but these are allowed for in the calculations and absorbed in the overall results of a diversified operation.

To carry this discussion to a logical extreme, we might suggest that a defensible investment operation could be set up by buying such intangible values as are represented by a group of “common stock option warrants” selling at historically low prices. (This example is intended as somewhat of a shocker.)⁶ The entire value of these warrants rests on the possibility that the related stocks may some day advance above the option price. At the moment they have no exercisable value. **Yet, since all investment rests on reasonable future expectations**, it is proper to view these warrants in terms of the mathematical chances that some future bull market will create a large increase in their indicated value and in their price. Such a study might well yield the conclusion that there is much more to be gained in such an operation than to be

⁶ Graham uses “common stock option warrant” as a synonym for “warrant,” a security issued directly by a corporation giving the holder a right to purchase the company’s stock at a predetermined price. Warrants have been almost entirely superseded by stock options. Graham quips that he intends the example as a “shocker” because, even in his day, warrants were regarded as one of the market’s seediest backwaters.

lost and that the chances of an ultimate profit are much better than those of an ultimate loss. If that is so, there is a safety margin present even in this unprepossessing security form. A sufficiently enterprising investor could then include an option-warrant operation in this miscellany of unconventional investments.

To Sum Up

Investment is most intelligent when it is most *businesslike*. It is amazing to see how many capable businessmen try to operate in Wall Street with complete disregard of all the sound principles through which they have gained success in their own undertakings. Yet every corporate security may best be viewed, in the first instance, as an ownership interest in, or a claim against, a specific business enterprise. And if a person sets out to make profits from security purchases and sales, he is embarking on a business venture of his own, which must be run in accordance with accepted business principles if it is to have a chance of success.

The first and most obvious of these principles is, “**Know what you are doing—know your business.**” (*circle of competence*). For the investor this means: Do not try to make “business profits” out of securities—that is, returns in excess of normal interest and dividend income—unless you know as much about security values as you would need to know about the value of merchandise that you proposed to manufacture or deal in.

A second business principle: “Do not let anyone else run your business, unless (1) you can supervise his performance with adequate care and comprehension or (2) you have unusually strong reasons for placing implicit confidence in his integrity and ability.” For the investor this rule should determine the conditions under which he will permit someone else to decide what is done with his money.

A third business principle: “Do not enter upon an operation—that is, manufacturing or trading in an item—unless a reliable calculation shows that it has a fair chance to yield a reasonable profit. In particular, keep away from ventures in which you have little to gain and much to lose.” For the enterprising investor this means that his operations for profit should be based not on optimism but on arithmetic. For every investor it means that when he limits his return to a small figure—as formerly, at least, in a conventional bond or preferred stock—he must demand convincing evidence that he is not risking a substantial part of his principal.

A fourth business rule is more positive: “Have the courage of your knowledge and experience. If you have formed a conclusion from the facts and if you know your judgment is sound, act on it—even though others may hesitate or differ.” (**You are neither right nor wrong because the crowd disagrees with you. You are right because your data and reasoning are right.**) Similarly, in the world of securities, courage becomes the supreme virtue *after* adequate knowledge and a tested judgment are at hand.

Fortunately for the typical investor, it is by no means necessary for his success that he bring these qualities to bear upon his program—provided he limits his ambition to his capacity and confines his activities with the safe and narrow path of standard, defensive investment. To achieve satisfactory investment results is easier than most people realize; to achieve *superior* results is harder than it looks.

-

What is risk?

While its meaning may seem nearly as fickle and fluctuating as the financial markets themselves, risk has some profound and permanent attributes. The people who take the biggest gambles and make the biggest gains in a bull market are almost always the ones who get hurt the worst in the bear market that inevitable follows. (Being “right” makes speculators even more eager to take extra risk, as their confidence catches fire.) And once you lose big money, you then have to gamble even harder just to get back to where you were, like a racetrack or casino gambler who desperately doubles up after every bad bet. Unless you are phenomenally luckily, that is a recipe for disaster. No wonder, when he was asked to sum up everything he had learned in his long career about how to get rich, the legendary financier, *J.K. Kingenstein* of Wertheim & Co. answered simply: **“Don’t lose.”**

Losing some money is an inevitable part of investing, and there is nothing you can do to prevent it. But, to be an intelligent investor, you must take responsibility for ensuring that you never lose most or all of your money. The Hindu Goddess of wealth, *Lakshmi*, is often portrayed standing on tiptoe, ready to dart away in the blink of an eye. To keep her symbolically in place, some of *Lakshmi*’s devotees will lash her statue down with strips of fabric or nail its feet to the floor. For the intelligent investor Graham’s “margin of safety” performs the same function: By refusing to pay too much for an investment, you minimize the chances that your wealth will ever disappear or suddenly be destroyed.

Consider this: Over the four quarters ending in Dec. 1999, *JDS Uniphase Corp.*, the fiber-optics company, generated \$673 million in net sales, on which it lost \$313 million, its tangible assets totaled \$1.5 billion. Yet on March 7, 2000, *JDS Uniphase*’s stock hit \$152 a share, giving the company a total market value of roughly \$143 billion. And then like most “New Era” stocks, it crashed. Anyone who bought it that day and still clung to it at the end of 2002 faced these prospects: 10.2 years to break-even at 50% CAGR. Even at a robust 10% annual rate of return, it will take more than 43 years to break even on this overpriced purchase!

THE RISK IS NOT IN OUR STOCKS, BUT IN OURSELVES

Risk exists in another dimension: inside you. If you overestimate how well you really understand an investment, or overstate your ability to rise out a temporary plunge in prices, it doesn’t matter what you own or how the market does. Ultimately, financial risk resides not in what kinds of investments you have, but in what kind of investor you are. If you want to know what risk really is, go to the nearest bathroom and stop up to the mirror. That is risk, gazing back at you from the glass.

As you look at yourself in the mirror, what should you watch for? The Nobel-prize-winning psychologist Daniel Kahneman explains two factors that characterize good decisions:

Well-calibrated confidence” (do I understand this investment as well as I think I do?)

Correctly-anticipated regret? (How will I react if my analysis turns out to be wrong?)

To find out whether your confidence is well calibrated, look in the mirror and ask yourself: “What is the likelihood that my analysis is right?” Think carefully through these questions:

How much experience do I have? What is my track record with similar decisions in the past?

What is the typical track record of other people who have tried this in the past?

If I am buying, someone else is selling. How likely is it that I know something that this other person or company does not know?

If I am selling, someone else is buying. How likely is it that I know something that this other person or company does not know?

END

Benjamin Graham's view of Margin of Safety⁷

Dec 5, 2004

Benjamin Graham, frequently referred to as "the father of value investing" defines margin of safety as:

earning power of the company - return on long-term risk-free bonds

Where a company's earning power is calculated by taking the company's average earnings per share over the last several years, and dividing this by the share price. For example, suppose Jack's Furniture Company (not a real company) trades at \$17.5 per share, and suppose its earnings per share over the last several years have been:

\$1

\$1.2

\$1.3

\$1.65

\$1.75

From these results, it looks like this company is growing at approximately 15% per

⁷ Source: <http://www.bronsteinreport.com/grahammos.htm>

year and is trading at a P/E ratio of 10. Graham, however, would suspect that the company's earnings only grew because of temporary factors. For example, perhaps the economy is doing particularly well at the moment, leading people to purchase more furniture than usual. Graham might expect that in the future, the company's earnings will fall to a lower level.

He would likely say, the earning power of the company is the *average* of the company's earnings over the last several years, or:

$$\frac{1 + 1.2 + 1.3 + 1.65 + 1.75}{5} = \text{\$1.38 per share.}$$

Dividing \$1.38 into the share price of 17.5, we get an earnings yield of 7.8%.

If long term treasury bonds are returning 5%, the company is trading at a margin of safety of 7.8% - 5%, which is 2.8%. This means, the company's earnings yield is 2.8 percentage points higher than is necessary for the stock to perform as well as risk-free bonds. If the company performs worse than we expect, and the company's earning power turns out to be only \$0.88 per share, the return on the stock will likely be roughly equal to the return on 30-year treasuries. So, according to Graham's theory, Jack Co is likely a better investment than long-term bonds, even if the company's earnings fall significantly.

This concept of "margin of safety" is quite conservative, but that doesn't make it useless. It might be worth considering.

THE GENERAL THEORY
OF
EMPLOYMENT, INTEREST, AND MONEY

CHAPTER 12

THE STATE OF LONG-TERM EXPECTATION

I

WE have seen in the previous chapter that the scale of investment depends on the relation between the rate of interest and the schedule of the marginal efficiency of capital corresponding to different scales of current investment, whilst the marginal efficiency of capital depends on the relation between the supply price of a capital-asset and its prospective yield. In this chapter we shall consider in more detail some of the factors which determine the prospective yield of an asset.

The considerations upon which expectations of prospective yields are based are partly existing facts which we can assume to be known more or less for certain, and partly future events which can only be forecasted with more or less confidence. Amongst the first may be mentioned the existing stock of various types of capital-assets and of capital-assets in general and the strength of the existing consumers' demand for goods which require for their efficient production a relatively larger assistance from capital. Amongst the latter are future changes in the type and quantity of the stock of capital-assets and in the tastes of the consumer, the strength of effective demand from time to time during the life of the investment under consideration, and the changes in the wage-unit in terms of money which may occur during its life. We may sum up the state of psychological expectation which covers the

latter as being the *state of long-term expectation*;—as distinguished from the short-term expectation upon the basis of which a producer estimates what he will get for a product when it is finished if he decides to begin producing it to-day with the existing plant, which we examined in Chapter 5.

II

It would be foolish, in forming our expectations, to attach great weight to matters which are very uncertain.¹ It is reasonable, therefore, to be guided to a considerable degree by the facts about which we feel somewhat confident, even though they may be less decisively relevant to the issue than other facts about which our knowledge is vague and scanty. For this reason the facts of the existing situation enter, in a sense disproportionately, into the formation of our long-term expectations; our usual practice being to take the existing situation and to project it into the future, modified only to the extent that we have more or less definite reasons for expecting a change.

The state of long-term expectation, upon which our decisions are based, does not solely depend, therefore, on the most probable forecast we can make. It also depends on the *confidence* with which we make this forecast—on how highly we rate the likelihood of our best forecast turning out quite wrong. If we expect large changes but are very uncertain as to what precise form these changes will take, then our confidence will be weak.

The *state of confidence*, as they term it, is a matter to which practical men always pay the closest and most anxious attention. But economists have not analysed it carefully and have been content, as a rule, to discuss

¹ By "very uncertain" I do not mean the same thing as "very improbable". Cf. my *Treatise on Probability*, chap. 6, on "The Weight of Arguments".

it in general terms. In particular it has not been made clear that its relevance to economic problems comes in through its important influence on the schedule of the marginal efficiency of capital. There are not two separate factors affecting the rate of investment, namely, the schedule of the marginal efficiency of capital and the state of confidence. The state of confidence is relevant because it is one of the major factors determining the former, which is the same thing as the investment demand-schedule.

There is, however, not much to be said about the state of confidence *a priori*. Our conclusions must mainly depend upon the actual observation of markets and business psychology. This is the reason why the ensuing digression is on a different level of abstraction from most of this book.

For convenience of exposition we shall assume in the following discussion of the state of confidence that there are no changes in the rate of interest; and we shall write, throughout the following sections, as if changes in the values of investments were solely due to changes in the expectation of their prospective yields and not at all to changes in the rate of interest at which these prospective yields are capitalised. The effect of changes in the rate of interest is, however, easily superimposed on the effect of changes in the state of confidence.

III

The outstanding fact is the extreme precariousness of the basis of knowledge on which our estimates of prospective yield have to be made. Our knowledge of the factors which will govern the yield of an investment some years hence is usually very slight and often negligible. If we speak frankly, we have to admit that our basis of knowledge for estimating the yield ten years hence of a railway, a copper mine, a textile factory, the goodwill of a patent medicine, an Atlantic

liner, a building in the City of London amounts to little and sometimes to nothing; or even five years hence. In fact, those who seriously attempt to make any such estimate are often so much in the minority that their behaviour does not govern the market.

In former times, when enterprises were mainly owned by those who undertook them or by their friends and associates, investment depended on a sufficient supply of individuals of sanguine temperament and constructive impulses who embarked on business as a way of life, not really relying on a precise calculation of prospective profit. The affair was partly a lottery, though with the ultimate result largely governed by whether the abilities and character of the managers were above or below the average. Some would fail and some would succeed. But even after the event no one would know whether the average results in terms of the sums invested had exceeded, equalled or fallen short of the prevailing rate of interest; though, if we exclude the exploitation of natural resources and monopolies, it is probable that the actual average results of investments, even during periods of progress and prosperity, have disappointed the hopes which prompted them. Business men play a mixed game of skill and chance, the average results of which to the players are not known by those who take a hand. If human nature felt no temptation to take a chance, no satisfaction (profit apart) in constructing a factory, a railway, a mine or a farm, there might not be much investment merely as a result of cold calculation.

Decisions to invest in private business of the old-fashioned type were, however, decisions largely irrevocable, not only for the community as a whole, but also for the individual. With the separation between ownership and management which prevails to-day and with the development of organised investment markets, a new factor of great importance has entered in, which sometimes facilitates investment but sometimes adds

greatly to the instability of the system. In the absence of security markets, there is no object in frequently attempting to revalue an investment to which we are committed. But the Stock Exchange revalues many investments every day and the revaluations give a frequent opportunity to the individual (though not to the community as a whole) to revise his commitments. It is as though a farmer, having tapped his barometer after breakfast, could decide to remove his capital from the farming business between 10 and 11 in the morning and reconsider whether he should return to it later in the week. But the daily revaluations of the Stock Exchange, though they are primarily made to facilitate transfers of old investments between one individual and another, inevitably exert a decisive influence on the rate of current investment. For there is no sense in building up a new enterprise at a cost greater than that at which a similar existing enterprise can be purchased; whilst there is an inducement to spend on a new project what may seem an extravagant sum, if it can be floated off on the Stock Exchange at an immediate profit.¹ Thus certain classes of investment are governed by the average expectation of those who deal on the Stock Exchange as revealed in the price of shares, rather than by the genuine expectations of the professional entrepreneur.² How then are these highly significant daily, even hourly, revaluations of existing investments carried out in practice?

¹ In my *Treatise on Money* (vol. ii. p. 195) I pointed out that when a company's shares are quoted very high so that it can raise more capital by issuing more shares on favourable terms, this has the same effect as if it could borrow at a low rate of interest. I should now describe this by saying that a high quotation for existing equities involves an increase in the marginal efficiency of the corresponding type of capital and therefore has the same effect (since investment depends on a comparison between the marginal efficiency of capital and the rate of interest) as a fall in the rate of interest.

² This does not apply, of course, to classes of enterprise which are not readily marketable or to which no negotiable instrument closely corresponds. The categories falling within this exception were formerly extensive. But measured as a proportion of the total value of new investment they are rapidly declining in importance.

IV

In practice we have tacitly agreed, as a rule, to fall back on what is, in truth, a *convention*. The essence of this convention—though it does not, of course, work out quite so simply—lies in assuming that the existing state of affairs will continue indefinitely, except in so far as we have specific reasons to expect a change. This does not mean that we really believe that the existing state of affairs will continue indefinitely. We know from extensive experience that this is most unlikely. The actual results of an investment over a long term of years very seldom agree with the initial expectation. Nor can we rationalise our behaviour by arguing that to a man in a state of ignorance errors in either direction are equally probable, so that there remains a mean actuarial expectation based on equi-probabilities. For it can easily be shown that the assumption of arithmetically equal probabilities based on a state of ignorance leads to absurdities. We are assuming, in effect, that the existing market valuation, however arrived at, is uniquely *correct* in relation to our existing knowledge of the facts which will influence the yield of the investment, and that it will only change in proportion to changes in this knowledge; though, philosophically speaking, it cannot be uniquely correct, since our existing knowledge does not provide a sufficient basis for a calculated mathematical expectation. In point of fact, all sorts of considerations enter into the market valuation which are in no way relevant to the prospective yield.

Nevertheless the above conventional method of calculation will be compatible with a considerable measure of continuity and stability in our affairs, *so long as we can rely on the maintenance of the convention*.

For if there exist organised investment markets and if we can rely on the maintenance of the convention, an investor can legitimately encourage himself with the

idea that the only risk he runs is that of a genuine change in the news *over the near future*, as to the likelihood of which he can attempt to form his own judgment, and which is unlikely to be very large. For, assuming that the convention holds good, it is only these changes which can affect the value of his investment, and he need not lose his sleep merely because he has not any notion what his investment will be worth ten years hence. Thus investment becomes reasonably "safe" for the individual investor over short periods, and hence over a succession of short periods however many, if he can fairly rely on there being no breakdown in the convention and on his therefore having an opportunity to revise his judgment and change his investment, before there has been time for much to happen. Investments which are "fixed" for the community are thus made "liquid" for the individual.

It has been, I am sure, on the basis of some such procedure as this that our leading investment markets have been developed. But it is not surprising that a convention, in an absolute view of things so arbitrary, should have its weak points. It is its precariousness which creates no small part of our contemporary problem of securing sufficient investment.

v

Some of the factors which accentuate this precariousness may be briefly mentioned.

(1) As a result of the gradual increase in the proportion of the equity in the community's aggregate capital investment which is owned by persons who do not manage and have no special knowledge of the circumstances, either actual or prospective, of the business in question, the element of real knowledge in the valuation of investments by those who own them or contemplate purchasing them has seriously declined.

(2) Day-to-day fluctuations in the profits of existing

investments, which are obviously of an ephemeral and non-significant character, tend to have an altogether excessive, and even an absurd, influence on the market. It is said, for example, that the shares of American companies which manufacture ice tend to sell at a higher price in summer when their profits are seasonally high than in winter when no one wants ice. The recurrence of a bank-holiday may raise the market valuation of the British railway system by several million pounds.

(3) A conventional valuation which is established as the outcome of the mass psychology of a large number of ignorant individuals is liable to change violently as the result of a sudden fluctuation of opinion due to factors which do not really make much difference to the prospective yield; since there will be no strong roots of conviction to hold it steady. In abnormal times in particular, when the hypothesis of an indefinite continuance of the existing state of affairs is less plausible than usual even though there are no express grounds to anticipate a definite change, the market will be subject to waves of optimistic and pessimistic sentiment, which are unreasoning and yet in a sense legitimate where no solid basis exists for a reasonable calculation.

(4) But there is one feature in particular which deserves our attention. It might have been supposed that competition between expert professionals, possessing judgment and knowledge beyond that of the average private investor, would correct the vagaries of the ignorant individual left to himself. It happens, however, that the energies and skill of the professional investor and speculator are mainly occupied otherwise. For most of these persons are, in fact, largely concerned, not with making superior long-term forecasts of the probable yield of an investment over its whole life, but with foreseeing changes in the conventional basis of valuation a short time ahead of the general public. They are concerned, not with what an investment is

really worth to a man who buys it "for keeps", but with what the market will value it at, under the influence of mass psychology, three months or a year hence. Moreover, this behaviour is not the outcome of a wrong-headed propensity. It is an inevitable result of an investment market organised along the lines described. For it is not sensible to pay 25 for an investment of which you believe the prospective yield to justify a value of 30, if you also believe that the market will value it at 20 three months hence.

Thus the professional investor is forced to concern himself with the anticipation of impending changes, in the news or in the atmosphere, of the kind by which experience shows that the mass psychology of the market is most influenced. This is the inevitable result of investment markets organised with a view to so-called "liquidity". Of the maxims of orthodox finance none, surely, is more anti-social than the fetish of liquidity, the doctrine that it is a positive virtue on the part of investment institutions to concentrate their resources upon the holding of "liquid" securities. It forgets that there is no such thing as liquidity of investment for the community as a whole. The social object of skilled investment should be to defeat the dark forces of time and ignorance which envelop our future. The actual, private object of the most skilled investment to-day is "to beat the gun", as the Americans so well express it, to outwit the crowd, and to pass the bad, or depreciating, half-crown to the other fellow.

This battle of wits to anticipate the basis of conventional valuation a few months hence, rather than the prospective yield of an investment over a long term of years, does not even require gulls amongst the public to feed the maws of the professional;—it can be played by professionals amongst themselves. Nor is it necessary that anyone should keep his simple faith in the conventional basis of valuation having any genuine long-term validity. For it is, so to speak, a game of Snap,

of Old Maid, of Musical Chairs—a pastime in which he is victor who says *Snap* neither too soon nor too late, who passes the Old Maid to his neighbour before the game is over, who secures a chair for himself when the music stops. These games can be played with zest and enjoyment, though all the players know that it is the Old Maid which is circulating, or that when the music stops some of the players will find themselves unseated.

Or, to change the metaphor slightly, professional investment may be likened to those newspaper competitions in which the competitors have to pick out the six prettiest faces from a hundred photographs, the prize being awarded to the competitor whose choice most nearly corresponds to the average preferences of the competitors as a whole; so that each competitor has to pick, not those faces which he himself finds prettiest, but those which he thinks likeliest to catch the fancy of the other competitors, all of whom are looking at the problem from the same point of view. It is not a case of choosing those which, to the best of one's judgment, are really the prettiest, nor even those which average opinion genuinely thinks the prettiest. We have reached the third degree where we devote our intelligences to anticipating what average opinion expects the average opinion to be. And there are some, I believe, who practise the fourth, fifth and higher degrees.

If the reader interjects that there must surely be large profits to be gained from the other players in the long run by a skilled individual who, unperturbed by the prevailing pastime, continues to purchase investments on the best genuine long-term expectations he can frame, he must be answered, first of all, that there are, indeed, such serious-minded individuals and that it makes a vast difference to an investment market whether or not they predominate in their influence over the game-players. But we must also add that there are

several factors which jeopardise the predominance of such individuals in modern investment markets. Investment based on genuine long-term expectation is so difficult to-day as to be scarcely practicable. He who attempts it must surely lead much more laborious days and run greater risks than he who tries to guess better than the crowd how the crowd will behave; and, given equal intelligence, he may make more disastrous mistakes. There is no clear evidence from experience that the investment policy which is socially advantageous coincides with that which is most profitable. It needs *more* intelligence to defeat the forces of time and our ignorance of the future than to beat the gun. Moreover, life is not long enough;—human nature desires quick results, there is a peculiar zest in making money quickly, and remoter gains are discounted by the average man at a very high rate. The game of professional investment is intolerably boring and over-exacting to anyone who is entirely exempt from the gambling instinct; whilst he who has it must pay to this propensity the appropriate toll. Furthermore, an investor who proposes to ignore near-term market fluctuations needs greater resources for safety and must not operate on so large a scale, if at all, with borrowed money—a further reason for the higher return from the pastime to a given stock of intelligence and resources. Finally it is the long-term investor, he who most promotes the public interest, who will in practice come in for most criticism, wherever investment funds are managed by committees or boards or banks.¹ For it is in the essence of his behaviour that he should be eccentric, unconventional and rash in the eyes of average opinion. If he is successful, that will only confirm the general belief in his rashness; and if

¹ The practice, usually considered prudent, by which an investment trust or an insurance office frequently calculates not only the income from its investment portfolio but also its capital valuation in the market, may also tend to direct too much attention to short-term fluctuations in the latter.

in the short run he is unsuccessful, which is very likely, he will not receive much mercy. Worldly wisdom teaches that it is better for reputation to fail conventionally than to succeed unconventionally.

(5) So far we have had chiefly in mind the state of confidence of the speculator or speculative investor himself and may have seemed to be tacitly assuming that, if he himself is satisfied with the prospects, he has unlimited command over money at the market rate of interest. This is, of course, not the case. Thus we must also take account of the other facet of the state of confidence, namely, the confidence of the lending institutions towards those who seek to borrow from them, sometimes described as the state of credit. A collapse in the price of equities, which has had disastrous reactions on the marginal efficiency of capital, may have been due to the weakening either of speculative confidence or of the state of credit. But whereas the weakening of either is enough to cause a collapse, recovery requires the revival of *both*. For whilst the weakening of credit is sufficient to bring about a collapse, its strengthening, though a necessary condition of recovery, is not a sufficient condition.

VI

These considerations should not lie beyond the purview of the economist. But they must be relegated to their right perspective. If I may be allowed to appropriate the term *speculation* for the activity of forecasting the psychology of the market, and the term *enterprise* for the activity of forecasting the prospective yield of assets over their whole life, it is by no means always the case that speculation predominates over enterprise. As the organisation of investment markets improves, the risk of the predominance of speculation does, however, increase. In one of the greatest investment markets in the world, namely, New York, the

influence of speculation (in the above sense) is enormous. Even outside the field of finance, Americans are apt to be unduly interested in discovering what average opinion believes average opinion to be; and this national weakness finds its nemesis in the stock market. It is rare, one is told, for an American to invest, as many Englishmen still do, "for income"; and he will not readily purchase an investment except in the hope of capital appreciation. This is only another way of saying that, when he purchases an investment, the American is attaching his hopes, not so much to its prospective yield, as to a favourable change in the conventional basis of valuation, *i.e.* that he is, in the above sense, a speculator. Speculators may do no harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done. The measure of success attained by Wall Street, regarded as an institution of which the proper social purpose is to direct new investment into the most profitable channels in terms of future yield, cannot be claimed as one of the outstanding triumphs of *laissez-faire* capitalism—which is not surprising, if I am right in thinking that the best brains of Wall Street have been in fact directed towards a different object.

These tendencies are a scarcely avoidable outcome of our having successfully organised "liquid" investment markets. It is usually agreed that casinos should, in the public interest, be inaccessible and expensive. And perhaps the same is true of Stock Exchanges. That the sins of the London Stock Exchange are less than those of Wall Street may be due, not so much to differences in national character, as to the fact that to the average Englishman Throgmorton Street is, compared with Wall Street to the average American, inaccessible and very expensive. The jobber's "turn", the high

brokerage charges and the heavy transfer tax payable to the Exchequer, which attend dealings on the London Stock Exchange, sufficiently diminish the liquidity of the market (although the practice of fortnightly accounts operates the other way) to rule out a large proportion of the transactions characteristic of Wall Street.¹ The introduction of a substantial Government transfer tax on all transactions might prove the most serviceable reform available, with a view to mitigating the predominance of speculation over enterprise in the United States.

The spectacle of modern investment markets has sometimes moved me towards the conclusion that to make the purchase of an investment permanent and indissoluble, like marriage, except by reason of death or other grave cause, might be a useful remedy for our contemporary evils. For this would force the investor to direct his mind to the long-term prospects and to those only. But a little consideration of this expedient brings us up against a dilemma, and shows us how the liquidity of investment markets often facilitates, though it sometimes impedes, the course of new investment. For the fact that each individual investor flatters himself that his commitment is "liquid" (though this cannot be true for all investors collectively) calms his nerves and makes him much more willing to run a risk. If individual purchases of investments were rendered illiquid, this might seriously impede new investment, so long as *alternative ways* in which to hold his savings are available to the individual. This is the dilemma. So long as it is open to the individual to employ his wealth in hoarding or lending *money*, the alternative of purchasing actual capital assets cannot be rendered sufficiently attractive (especially to the man who does

¹ It is said that, when Wall Street is active, at least a half of the purchases or sales of investments are entered upon with an intention on the part of the speculator to reverse them *the same day*. This is often true of the commodity exchanges also.

not manage the capital assets and knows very little about them), except by organising markets wherein these assets can be easily realised for money.

The only radical cure for the crises of confidence which afflict the economic life of the modern world would be to allow the individual no choice between consuming his income and ordering the production of the specific capital-asset which, even though it be on precarious evidence, impresses him as the most promising investment available to him. It might be that, at times when he was more than usually assailed by doubts concerning the future, he would turn in his perplexity towards more consumption and less new investment. But that would avoid the disastrous, cumulative and far-reaching repercussions of its being open to him, when thus assailed by doubts, to spend his income neither on the one nor on the other.

Those who have emphasised the social dangers of the hoarding of money have, of course, had something similar to the above in mind. But they have overlooked the possibility that the phenomenon can occur without any change, or at least any commensurate change, in the hoarding of money.

VII

Even apart from the instability due to speculation, there is the instability due to the characteristic of human nature that a large proportion of our positive activities depend on spontaneous optimism rather than on a mathematical expectation, whether moral or hedonistic or economic. Most, probably, of our decisions to do something positive, the full consequences of which will be drawn out over many days to come, can only be taken as a result of animal spirits—of a spontaneous urge to action rather than inaction, and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities. Enterprise

only pretends to itself to be mainly actuated by the statements in its own prospectus, however candid and sincere. Only a little more than an expedition to the South Pole, is it based on an exact calculation of benefits to come. Thus if the animal spirits are dimmed and the spontaneous optimism falters, leaving us to depend on nothing but a mathematical expectation, enterprise will fade and die;—though fears of loss may have a basis no more reasonable than hopes of profit had before.

It is safe to say that enterprise which depends on hopes stretching into the future benefits the community as a whole. But individual initiative will only be adequate when reasonable calculation is supplemented and supported by animal spirits, so that the thought of ultimate loss which often overtakes pioneers, as experience undoubtedly tells us and them, is put aside as a healthy man puts aside the expectation of death.

This means, unfortunately, not only that slumps and depressions are exaggerated in degree, but that economic prosperity is excessively dependent on a political and social atmosphere which is congenial to the average business man. If the fear of a Labour Government or a New Deal depresses enterprise, this need not be the result either of a reasonable calculation or of a plot with political intent;—it is the mere consequence of upsetting the delicate balance of spontaneous optimism. In estimating the prospects of investment, we must have regard, therefore, to the nerves and hysteria and even the digestions and reactions to the weather of those upon whose spontaneous activity it largely depends.

We should not conclude from this that everything depends on waves of irrational psychology. On the contrary, the state of long-term expectation is often steady, and, even when it is not, the other factors exert their compensating effects. We are merely reminding ourselves that human decisions affecting the future, whether personal or political or economic, cannot

depend on strict mathematical expectation, since the basis for making such calculations does not exist; and that it is our innate urge to activity which makes the wheels go round, our rational selves choosing between the alternatives as best we are able, calculating where we can, but often falling back for our motive on whim or sentiment or chance.

VIII

There are, moreover, certain important factors which somewhat mitigate in practice the effects of our ignorance of the future. Owing to the operation of compound interest combined with the likelihood of obsolescence with the passage of time, there are many individual investments of which the prospective yield is legitimately dominated by the returns of the comparatively near future. In the case of the most important class of very long-term investments, namely buildings, the risk can be frequently transferred from the investor to the occupier, or at least shared between them, by means of long-term contracts, the risk being outweighed in the mind of the occupier by the advantages of continuity and security of tenure. In the case of another important class of long-term investments, namely public utilities, a substantial proportion of the prospective yield is practically guaranteed by monopoly privileges coupled with the right to charge such rates as will provide a certain stipulated margin. Finally there is a growing class of investments entered upon by, or at the risk of, public authorities, which are frankly influenced in making the investment by a general presumption of there being prospective social advantages from the investment, whatever its commercial yield may prove to be within a wide range, and without seeking to be satisfied that the mathematical expectation of the yield is at least equal to the current rate of interest,—though the rate which the public

authority has to pay may still play a decisive part in determining the scale of investment operations which it can afford.

Thus after giving full weight to the importance of the influence of short-period changes in the state of long-term expectation as distinct from changes in the rate of interest, we are still entitled to return to the latter as exercising, at any rate, in normal circumstances, a great, though not a decisive, influence on the rate of investment. Only experience, however, can show how far management of the rate of interest is capable of continuously stimulating the appropriate volume of investment.

For my own part I am now somewhat sceptical of the success of a merely monetary policy directed towards influencing the rate of interest. I expect to see the State, which is in a position to calculate the marginal efficiency of capital-goods on long views and on the basis of the general social advantage, taking an ever greater responsibility for directly organising investment; since it seems likely that the fluctuations in the market estimation of the marginal efficiency of different types of capital, calculated on the principles I have described above, will be too great to be offset by any practicable changes in the rate of interest.