Value Investing: Definitions, Distinctions, Results, Risks, Principles

What Value Investing Is

Value investing is an approach to investing originally identified in the 1920s and 1930s by Benjamin Graham and David Dodd. Since then, the approach has developed and flourished in the hands of a notable but relatively small group of investors, the most famous of whom is Warren Buffett, who was their student in the early 1950s. As initially defined by Graham and Dodd, value investing rests on three key characteristics of financial markets:

- 1. The prices of financial securities are subject to significant and capricious movements. Mr. Market, Graham's famous personification of the impersonal forces that determine the price of securities at any moment, shows up every day to buy or sell any financial asset. He is a strange fellow, subject to all sorts of unpredictable mood swings that affect the price at which he is willing to do business.
- 2. Despite these gyrations in the market prices of financial assets, many of these assets do have underlying or fundamental economic values that are relatively stable and that can be measured with reasonable accuracy by a diligent and disciplined investor. In other words, the

intrinsic value of the security is one thing; the current price at which it is trading is something else. Though value and price may on any given day be identical, they often diverge.

3. A strategy of buying securities only when their market prices are significantly below the calculated intrinsic value will produce superior returns in the long run. Graham referred to this gap between value and price as "the margin of safety;" ideally the gap should amount to about one-half, and not be less than one-third, of the fundamental value. He wanted to buy a dollar for 50 cents; the eventual gain would be large and, more important, secure.

Starting with these three assumptions, the central process of value investing is disarmingly simple. A value investor estimates the fundamental value of a financial security and compares that value to the current price at which Mr. Market is offering it. If price is lower than value by a sufficient margin of safety, the value investor buys the security. We can think of this formula as the master recipe of Graham and Dodd value investing. Where their legitimate descendants differ from one another—where each may add his or her unique flavor—is in the precise way they handle some of the steps involved in the process:

- Selecting securities for valuation;
- Estimating their fundamental values;
- Calculating the appropriate margin of safety required for each security;
- Deciding how much of each security to buy, which encompasses the construction of a portfolio and includes a choice about the amount of diversification the investor desires;
- Deciding when to sell securities.

These are not trivial decisions. To search for securities selling below their intrinsic value is one thing, to find them quite another. It is because the Graham and Dodd descendants have devised a variety of approaches to those tasks that value investing has remained a vital discipline through all market conditions in the more than eight decades since Graham and Dodd first published *Securities Analysis*.

What Value Investing Isn't

A common and brief summary of value investing is that value investors search for and buy only "bargains," securities selling for less than their



Figure 1.1 Approaches to Investing

true or intrinsic values. There is a problem with this simple definition. No rational investor admits to searching for securities selling for more than their underlying value. Everyone is looking to buy low and sell high.¹ We need to be clear about what differentiates real value investors from all the others who trade in the securities markets (see Figure 1.1).

One large class of investors who obviously do not qualify are "technical" analysts, or technicians. Technicians avoid fundamental analysis of any kind. They pay no attention to a company's line of business, its balance sheet or income statement, the nature of its product markets, or anything else that might concern a fundamental investor of any stripe. They care nothing for economic value. Instead they focus on trading data, that is, the price movements and volume figures for any security. They believe that the history of these movements, reflecting the supply and demand for that security over time, traces patterns that they can analyze to infer future price movement. They construct charts to represent this information, and they scrutinize them for signs that will predict how prices will move next and thus allow them to make a profitable trade. For example, momentum investors extrapolate the current price trend,

¹ We are going to confine our general discussion throughout this book to the "long" position side of investing and ignore those investors who short (sell without owning) securities that they think are priced at more than their fundamental value. At certain points in his career, Graham used short sales to hedge other positions he had taken, and there may be bona fide value investors today who make active use of shorting securities. We discuss the pros and cons of short sales as an approach to risk management later in this book. In the main, however, value investing is identified with uncovering fundamental value and buying it at bargain price.

buying securities whose prices are rising in the expectation that they will continue to go up. Sometimes they compare the day's price for the security to a trend line made up of a moving average of the last 30, 90, 200, or some other number of days' prices. Crossing that trend line, up or down, can indicate a change in direction. Surely they intend to buy low and sell high, but *low* and *high* here refer to the previous and future prices of the security, unconnected to its fundamental value. For technical investors, Mr. Market is the only game in town. It is also a game that lends itself to trading—buying and selling over a short term. Very few traders ignore technical information. Today's chartists are much more likely to use sophisticated computerized algorithms to detect patterns, and to search for those patterns among different security prices rather than focus on the price history of a single security. But like most technicians, they are at best marginally interested in the fundamental economic value of the businesses underlying the securities.

Even when we turn back to people who legitimately see themselves as fundamental investors, concerned with the real economics of the companies whose securities they buy, Graham and Dodd value investors are distinct.

We can divide the class of fundamental investors into those who focus on macroeconomic issues and those who concentrate on the microeconomics of specific securities. Macrofundamentalists are concerned with broad economic factors that affect the universe of securities as a whole, or at least in large groups: inflation rates, interest rates, exchange rates, unemployment rates, and the rate of economic growth at the national or even international level. They closely monitor the actions of policy makers, like the Federal Reserve Board, and aggregate investor and consumer sentiment. They use their information to forecast broad economic trends, and they then use the forecasts to decide which groups of securities (or even individual issues) are likely to be most affected by the changes they predict. Their approach is often referred to as *top-down*, starting with the overall economy and working down to specific industries and securities. Like every other investor, they intend to buy low and sell high, using what they hope are their superior predictions to trade before the market as a whole recognizes what is happening. They do not, as a rule, do direct calculations of the value of individual securities or particular classes of securities, though such calculations could be consistent with a macro-fundamentalists approach. Although there are some famous and successful macro value investors, value investors in the Graham and Dodd tradition are basically microfundamentalists.

Within the society of microfundamentalists—those who analyze the economic fundamentals of companies and look at securities one by one—value investors in the Graham and Dodd tradition are still a minority. A more common approach to microfundamentalist investing takes the current price of a stock or other security as the point of departure. These investors study the history of this security, noting how the price has moved in response to changes in those economic factors that are thought to influence it: earnings, industry conditions, new product introductions, improvements in production technology, management shake-ups, growth in demand, shifts in financial leverage, new plant and equipment investments, acquisitions of other companies and divestitures of lines of business, and so on. There is more than enough to examine. They then try to anticipate how the critical variables on this list are likely to change, relying in large measure on company and industry sources as well as their more general knowledge.

Most forecasts focus on company earnings. Security prices incorporate the market's aggregate prediction about future earnings. If these investors find that their estimates of future earnings and other important variables exceed the market's expectations, then they purchase the securities. They assume that when new information about earnings and the other matters are released, their predictions will be validated and the market will drive up the price of the securities. They have bought low, based on a superior estimate of the future, and they intend to sell high.

Though this approach shares with value investing a concentration on economic fundamentals and specific securities, there are major differences. First, it focuses on prior and anticipated *changes* in prices, not on the *level* of prices relative to underlying values. One could apply this analysis equally well to a stock trading at 10, 20, or 50 times forecast earnings. A value investor would not regard these situations as equivalent. Second, this approach does not incorporate an identifiable margin of safety to safeguard the investment from Mr. Market's capricious behavior, which, after all, has been known to sink the price of shares in response to good news. So while Graham and Dodd value investing is most frequently a microfundamentalist approach, not all, or even most, microfundamentalists are value investors.

Each of these alternatives to value investing can lead to a successful investment record, provided it is carefully and diligently pursued. Statistical studies increasingly suggest that security prices and volumes do trace consistent and recognizable patterns; there are positive serial correlations in the short run and reversion to the mean over the longer term. There are successful technical investors. Macroeconomic variables can

be forecast with some accuracy and will affect securities markets in systematic and identifiable ways. There are successful macrofundamentalist investors. Analysts who energetically pursue information from company and industry sources, ferreting out trends ahead of the pack, should in theory and sometimes do in practice obtain above-average investment returns.

Another approach to investing outside the value tradition rejects all these possibilities. It arose from Modern Portfolio Theory and its sibling the Efficient Market Hypothesis, which were developed in academic finance departments beginning in the 1960s. The underlying premise of the theory is that current prices for securities, which are set by the collective perceptions of all market participants, accurately incorporate all the legally accessible information about future prices and values. Misperceptions and non-rational decisions are assumed to be essentially random. Excessive optimism, for example, on the part of some investors would be offset by excessive pessimism on the part of others. Correct perception, by contrast, being shared by many energetic and intelligent investors, would determine market prices. These prices would reflect the best forecasts of future developments affecting the companies' value. As a result, future price movements would depend either on random investor behavior or relevant new information that could not have been anticipated. Given these assumptions, future price changes would be unpredictable and current prices would be the best predictor of average future prices. All attempts by individual investors to outperform a portfolio based on current prices would be futile, since all changes would be random.

Given this view of security markets, the wise investor should focus on minimizing transaction costs and managing risk. The first task of risk management is to fully diversify away the idiosyncratic risks of individual investments, much as a risk-averse oil wildcatter drills a lot of holes to minimize the prospects of coming up dry by drilling only the few that look the most promising. For securities, this approach means buying a proportionate share of all the available risky securities to obtain the "market" return.

Second, the remaining risk, the systematic risk—which cannot be diversified away because it is the risk of the entire market—can be managed by combining market portfolios with investments in a risk-free asset, normally short-term government debt. By adjusting the proportion of overall wealth allocated to the risk-free asset, investors can obtain the exposure, from all in risk-free to all in the market portfolios, that suits their appetite for risk. Should some individual investments offer a better risk-return trade-off than the market portfolios, well-informed investors would crowd into those opportunities. By driving up their prices and thereby lowering future returns, this activity would bring all prices back into the risk-return alignment that the Efficient Market Theory posits as the normal condition. In the end, for investors who believe in market efficiency, the investment process consists of decisions about asset allocation—the right combination of risk-free and market—and minimizing transaction costs with index mutual funds and Exchange Traded Funds (ETFs).

Extensive empirical evidence has largely discredited the strong form of the Efficient Market Hypothesis. Some individual managers and firms have outperformed market portfolios over long periods of time. In addition, portfolios selected by simple statistical rules, such as those with lowest book to market value, have significantly outperformed market portfolios with no apparent increase in risk over extended sub-periods—15 years or so—going back to the 1920s in the United States. The same results hold true, with a few exceptions, for overseas markets throughout the periods for which adequate stock market return data has been available.

Nevertheless, there is one important sense in which markets are inescapably efficient. The average return earned by all investors, weighted by assets owned, in any asset category must equal the average return on the assets that make up that category. For example, the total of the returns that investors in the US stocks earn in any given period must be equal to the total return produced by US stocks in that period. All these stocks are owned by somebody, and any related derivatives net out (e.g. for each short seller, who does not own the shares in question, there is a corresponding buyer of those non-existent shares). Since the total value of stocks at any moment must also equal the total value of investors' stock holdings, the average percentage return earned by investors in US stocks must equal the average percentage returns produced by the US stock market as a whole-the market return. This means that if some investors outperform the market in question, other investors must underperform by an equal amount. Before transaction costs, security trading is a zero-sum game; with transaction costs included it becomes negative-sum.

A way to think about this constraint, one that should focus attention on its implications, is to recognize that every time you buy a security because you expect an above-average return, someone is selling it to you because they think the return will be below average. At least one of you will always be wrong; if the security does nothing, you will both lose the transaction costs and one of you the foregone return on the risk-free asset. It should not come as a surprise, therefore, that when we take the effort and expenses into account, 80–90% of active fund managers have done worse that the efficient markets strategy of buying low-fee index instruments.²

This inescapable reality is the most important feature of active investing, one that an active investor should never forget. An active investor must be able to identify convincing reasons why he or she will be on the right side of the trade more often than not—why, in other words, you will earn above-average returns. If you can't make that case, then investments in appropriate index funds make sense. We can acknowledge the effectiveness of index funds—known as *passive* investments because they seek only to mimic the market, not beat it, and make no investment decisions other than to be invested or not—without subscribing either to the idea that the price Mr. Market offers for a security is always the best measure of its fundamental value or that no investment approaches will outperform a passive approach over time.

Does Value Investing Work?

The case for value investing must confront this zero-sum constraint. The argument has both theoretical and empirical dimensions. We develop the theory in our detailed discussion of the procedures of modern value investing. Empirically, the historical record confirms that value investing strategies have worked; over extended periods, they have produced better returns than both the leading alternatives and the market as a whole.

Three distinct sources provide evidence of this superiority in practice. The first comes from a battery of mechanical selection tests. A researcher typically sorts all the stocks in the universe they have defined on a measure of value, such as market price to the book value of the equity or market price to earnings. They group the sorted stocks into buckets, frequently deciles, from the cheapest (value) to the most expensive (glamour). They record the total returns for each bucket over a defined period, usually one year. They then repeat the process for a number of years. At the end they have the returns over a long period of time—some go back 90 years—and can see how a mechanical value strategy has done relative both to the glamour stocks and to the market as a whole.

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² See Footnote 4 below for details.

Many studies have been conducted employing different versions of this approach.³ The results demonstrate almost invariably that the value portfolios produce better than average returns-average here meaning returns on the entire market-in almost all periods and all kinds of markets. Using Kenneth French's market to book data, the return of a portfolio that was long the cheapest 30% of stocks and short the most expensive 30% (a zero-cost portfolio before transaction fees) had a compound annual return of 3.35% from 1927 through 2018 on the gross amount invested in each bucket for an overall portfolio requiring no net investment; the outperformance has diminished since the publication of the article. Low price-to-earnings portfolios have had a similar success. Portfolios constructed of highly priced stocks, measured by market-to-book and price-to-earnings ratios, have done poorly. They are highly priced mainly because the companies have experienced rapid sales and earnings growth in the recent past; hence the label "glamour." Unfortunately, all of that success and expectations that it will continue have already been incorporated into the stock price by the time the portfolios are constructed.

These mechanical selections of stocks produce portfolios that look very much like those that a diligent value investor, analyzing stocks one by one, would construct, especially as value investing was practiced in its early period. But value investing is not the same thing as a mechanical approach—a computer program—that selects stocks on the basis of a statistical measure that indicates which ones are cheap. Calculations of intrinsic value are usually more intricate and require more detailed

³ Some of the most important papers have been written by Eugene Fama, an early and principal proponent of the efficient market theory, for which he was awarded a Nobel Prize in economics, and his co-author Kenneth French. The original article is Fama, Eugene F. and French, Kenneth R. (1992). "The Cross-section of Expected Stock Returns," Journal of Finance 47: 427-465. They have published many articles since then, and Professor French, currently at Dartmouth, has kept the original data and many other approaches up to date-and extended it back in time-on his website http://mba.tuck.dartmouth .edu/pages/faculty/ken.french/data_library.html. All investors-active, passive, or any variant thereof-are deeply in his debt. See also the papers produced by Fama's student Clifford Asness at his company's website, https://www.aqr.com/Insights/Research/White-Papers, and additional research published by Wesley Gray, another Fama student, on his website https://alphaarchitect.com/alpha-architect-white-papers/. Both Asness and Gray run investment firms that try to capitalize on market inefficiencies. The Internet has made research more available and more fluid, meaning it changes all the time. So far, value as a factor has withstood all the attention, although it has underperformed in the recovery period starting in 2009.

knowledge of company and industry economics than are disclosed by simple financial ratios.

Nevertheless, the striking historical success of these value portfolios produced by mechanical selection should remind us of the high standards that an active value investing strategy must meet. According to Standard & Poor's, more than 80% percent of active fund managers underperformed their market benchmark over a 5-, 10-, or 15-year period ending in June 2018.⁴ In that 15-year period, the S&P 500 returned 9.3% a year; the cheapest quintile of stocks sorted by earnings to price returned 11.8%.⁵ It is reassuring, therefore, that investment management institutions that have adopted systematic value strategies in the Graham and Dodd fashion have return records that outperform the market as a whole.⁶ The performance of these institutions is our second source of support for the argument that value investing produces superior returns. Unlike the mechanical studies, which are "backtests" of selection rules applied to historical data, these institutions have generated real returns for real clients. Value investing works in the world as well as the lab.⁷

Finally, among those notable investors who have earned returns well above market indices over long periods of time, value investors who trace their intellectual origins back to Graham and Dodd are heavily over-represented. The most famous of these is Warren Buffett. The list also includes many of the investors profiled in this book, those identified by Buffett himself in his 1984 article "The Superinvestors of Graham

⁴ Standard & Poor's maintains a scorecard to assess the performance of active fund managers against the specific market indices (benchmarks) to which they should be compared. It is called the SPIVA US Scorecard and is updated every 6 months. For the period ending June 30, 2018, fewer than 10% of active managers had beaten their S&P benchmark, whether large, mid, or small cap, over the previous 15 years. https://us.spindices.com/documents/ spiva/spiva-us-mid-year-2018.pdf

⁵ This data is from Kenneth French's website.

⁶ For example, The Tweedy Browne Value Fund, inception 1993, and The Sequoia Fund, inception 1970, have outperformed the SP 500 since they began despite the underperformance since the recovery in 2009. The Dodge and Cox Stock Fund has also outperformed, even over the last 20 years.

⁷ We should be clear that, like card-counting in blackjack, value investing does not work all the time. If it never underperformed the market, then everyone would become a value investor, and the advantage would be, in the terminology of the discipline, "arbitraged away." The statistical value portfolios typically underperform the market from 3 to 4 years out of 10. But over periods of 10 years or longer, value portfolios almost invariably outperform the market. The same applies to the value-oriented individuals and institutions. They may underperform significantly for extended periods, as in the later 1990s and in the period from March 2009 through this writing, but measured over significantly long windows, say 10 years or more, they almost always have outperformed.

and Doddsville."⁸ and others who have pursued value strategies without necessarily publicly embracing the Graham and Dodd tradition.

The theoretical case for value investing starts with the zero-sum nature of investing. A consistently superior approach must succeed at the expense of investors who underperform the overall market. This success should rest on advantages at every stage of an active investment process, whether value oriented or not. The process consists of four basic steps (see Figure 1.2):



Figure 1.2 The Sequence of Investment Steps

The first step is to craft a search strategy. No investor can look carefully at all of the thousands of investments available in the world today. They must identify an intelligently selected subset of the entire group to examine. Ideally, this subset will contain a disproportionate number of opportunities that will more often than not put our investor on the right side of the trade. Some search strategies are determined by the nature of the investment firm. For example, a firm or fund that invests only in US listed convertible bonds has the origins of a search strategy built into its investment mandate. An investor who seeks out US equities with attractive growth prospects, either with statistical screens or less formally by reading the appropriate literature, going to conferences, or talking with like-minded colleagues, has a search strategy. At a minimum, a good

⁸ Originally published in *Hermes*, reprinted in Benjamin Graham, *The Intelligent Investor*, 4th and subsequent editions.

search strategy should answer the questions of why you are looking at a particular investment and why, given the opportunities identified by the search, you are likely to be on the right side of the trade it identifies.

After the search strategy identifies a security for detailed investigation, the second step of the process is to decide what it is actually worth. This step is valuation. Whether valuation is done explicitly or implicitly, for example by picking stocks whose values are expected to increase, any investment decision must be based on the judgment that the future value of the security exceeds the price at which it can be purchased today. The various methods of valuation, like the alternative ways of conducting search strategies, define the investor's underlying approach. Technical investors assess future values based on prior price movements and trading patterns. Short-term fundamentalists adjust today's price for their estimate of near-term future developments at either the macroeconomic or individual security level. Efficient market investors default to today's price as the best measure of value. The point here is that everyone has a valuation rule. They are not all equally successful. The test of quality is the returns the investor earns by taking one side of the trade against someone whose valuation measure produces different, less accurate estimates.

Most useful valuation methods will identify important uncertainties related to the value of the security under examination. Professional investors will employ a systematic process of active research to resolve these uncertainties. The first characteristic of a well-conceived research process is that it is focused on those uncertain variables that most importantly affect valuation. Meeting this criterion requires a sound valuation approach that identifies these key uncertainties. Research efforts that are mechanically focused on a predetermined list of variables, unrelated to their relevance to the particular investment in question, will not be as efficient as those driven by a superior valuation methodology. Second, there is always significant indirect information available that may either confirm or challenge the initial valuation estimate. For example, has the chief financial officer recently sold all of his or her shares? Are other well-informed and disciplined investors buying or dumping the shares? What are the commonly held beliefs that underlie the current price of the shares, and why do you think your valuation is better than the consensus? Know yourself. How have you acted in similar situations in the past? Have you made decisions that look like this one, and how have they worked out? Are you, in other words, a sucker for certain kinds of stories? An effective research process will collect and analyze this relevant indirect evidence to an extent that is

at least as comprehensive and efficient—within the law—as that of the people on the other side of the trade.

Finally, having searched, evaluated, examined additional evidence to check the initial valuation, and made a decision, every investor needs a process for managing the risk that this investment adds to (or reduces in) the portfolio. What is the appropriate size of the position within the portfolio? Does it move in tandem with other holdings, or does it have a low or even negative correlation with them? Will it provide insurance in a crisis as gold, cash, and derivatives may do? Unlike the trading of securities, risk management is not a zero-sum game, especially when different investors face different risks. But even at this stage of the work, it is useful to think in competitive terms: are your definitions of risks and the processes you use to manage it as least as good as widely employed and available alternatives?

Our contention is that the approaches developed by Graham, Dodd, and their talented successors are at each stage of the process generally superior to the methods commonly employed by those outside the value tradition. We aim to convince the reader that not only does historical evidence—statistical studies, firm performance, and the success of individuals—support a value approach to investing but that until others develop alternative processes at least as effective as those of the Graham and Dodd community, value investing will continue to prevail in the future.

The Rest of the Book

Part II discusses valuation in depth, with chapters on valuing assets, earnings power, and growth. Two detailed analyses are incorporated, Hudson General as an example of an asset value approach, and Magna International for an earnings power valuation. Part III focuses on franchise businesses and a new approach to valuing growth in these firms. Again, there are two detailed examples, this time for franchise stocks: WD-40 and Intel. Part IV discusses research strategies and risk management.

In addition to the text between the covers of this book, we have been able to make available online some of the presentations delivered over the years in the value investing course at Columbia Business School, taught for a quarter century by Bruce Greenwald and now by Tano Santos. Some of the most extraordinary value investors have devoted time and effort to make these presentations, in some cases virtually annually. We are grateful beyond measure to them and the contributions they have made to the evolving discipline of value investing.

Appendix: Is Extra Return the Reward for Extra Risk?

One final issue regarding the factual evidence in favor of a value approach must be addressed. It is certainly possible that the higher returns achieved by value investing from each of these three sources—mechanically selected portfolios, value-oriented institutions, and individual Graham and Dodd investors—arise only because these portfolios are riskier than the market as a whole. If that were so, then their superior returns would be nothing more than an appropriate reward for bearing this increased risk. Many academic financial experts have been emphatic in arguing not only that higher return is the reward for higher risk but also that there is no way to beat the market's average return other than by assuming additional risk and that the best way to add risk is to leverage the market portfolio, since no stock selection process will outperform the market.

The problem with this argument is that when standard academic measures of risk—either annual return variability or betas as defined by modern finance theory—have been calculated for value portfolios, they have generally been no higher than the same risk measures applied to the market as a whole. In addition, value portfolios have proven to be less risky than the market as a whole when tested by other measures of risk, such as how much a stock drops in reaction to bad news about the company, the extent of price declines during bear markets, or simply the level of maximum loss experienced. These measures are closer to our commonsense understanding of risk and more appropriate for value investors, who regard price fluctuations as opportunities to buy or sell, not as accurate estimates of the intrinsic worth of the security.

For our mechanically selected value portfolios, which have been subjected to the most thorough statistical scrutiny, their average 1-year returns have been higher, their average 3-year holding period returns have been higher, their average 5-year holding period returns have been higher, they have provided superior returns during recessions, and they have outperformed glamour portfolios during the worst months for the stock market as whole. The value approach, even in its mechanical application, is no fair-weather friend. Looking at maximum losses (drawdowns), in the 30 years from 1989 to 2018, the S&P 500 had two major bear markets:

- August 30, 2000–September 30, 2002 (45%)
- October 21, 2007–February 28, 2009 (51%).

As a comparison, using Kenneth French's cheapest quintile as measured by earnings-to-price ratio, the two largest were:

- June 30, 2001–September 30, 2002 (19%)
- March 31, 2007–February 28, 2009 (51%).

In one case, the value portfolio lost considerably less money; in the other, they were equivalent. The compound annual returns for the entire 30-year period were 9.2% for the S&P and 12.9% for the cheapest quintile. Using drawdowns as a measure, it is impossible to say that the value portfolio outperformed by assuming more risk.

As another alternative approach to risk, we refer to Warren Buffett's classic account of how he came to buy a large chunk of the shares of The Washington Post Company. The date was late 1973. It was a miserable time for the economy, the stock market, the national temperament, and, naturally, a great moment for value investors. The market capitalization of The Washington Post Company had dropped to \$80 million. At that moment, the whole company could have been sold to any of 10 buyers for at least \$400 million. Clearly Mr. Market was in a dreadful mood. Now, Buffett asked, had the market value of the stock declined again, from \$80 million down to \$40 million, would that have made a purchase of the shares more risky? According to modern investment theory, yes, because it would have increased the volatility of the prices. According to Buffett, not at all, because it would have increased an already ample margin of safety and lowered whatever risk-he thinks there was none to begin with-existed in the purchase. As a calculation of risk, the margin of safety has nothing in common with the volatility of a security's price. In order to use it, you have to acknowledge the existence of an intrinsic value and feel confident about your ability to estimate it.