

CHAPTER 8**Graham's Disciples:
Value Investing****KEY POINTS**

Value investors are bargain hunters and many investors describe themselves as such. But who is a value investor? In this chapter, we begin by addressing this question and argue that value investors come in many forms. Some value investors use specific criteria to screen for what they categorize as undervalued stocks and invest in these stocks for the long term. Other value investors believe that bargains are best found in the aftermath of a sell-off and that the best time to buy a stock is when it is down. Still others adopt a more activist approach, where they buy large stakes in companies that they believe are undervalued and push for changes that they believe will unleash this value.

Value investing is backed by empirical evidence from financial theorists and by anecdotal evidence—the success of value investors like Ben Graham and Warren Buffett are part of investment mythology—but it is not for all investors. We will consider what investors need to bring to the table to succeed at value investing.

WHO IS A VALUE INVESTOR?

Morningstar is a widely used source of mutual fund information, and it categorized 38 percent of mutual funds as value funds in 2001. But how did it make this categorization? While it did look at the way these funds described themselves in their prospectus, the ultimate categorization was based on a far simpler measure. Any fund that invested in stocks with low

price-to-book value ratios or low price earnings ratios, relative to the market, was categorized as a value fund. This categorization is fairly conventional, but we believe that it is too narrow a definition and misses the essence of value investing.

Another widely used definition of value investors suggests that they are investors interested in buying stocks for less than what they are worth. But that is too broad a definition, because you could potentially categorize most active investors as value investors on this basis. After all, growth investors (who are often viewed as competing with value investors) also want to buy stocks for less than what they are worth. So, what is the essence of value investing? To understand value investing, we have to begin with the proposition that the value of a firm is derived from two sources—investments that the firm has already made (assets in place) and expected future investments (growth opportunities). What sets value investors apart is their desire to buy firms for less than what their assets-in-place are worth. Consequently, value investors tend to be leery of large premiums paid by markets for growth opportunities and try to find their best bargains in more mature companies that are out of favor.

Even with this definition of value investing, there are three distinct strands that we see in value investing. The first and perhaps simplest form of value investing is passive screening, where companies are put through a number of investment screens—for example, low PE ratios, marketability, and low risk—and those that pass the screens are categorized as good investments. In its second form, you have contrarian value investing, where you buy assets that are viewed as untouchable by other investors because of poor past performance or bad news about them. In its third form, you become an activist value investor who buys equity in undervalued or poorly managed companies but then uses the power of your position (which has to be a significant one) to push for change that will unlock this value.

THE PASSIVE SCREENER

There are many investors who believe that stocks with specific characteristics—good management, low risk, and high quality earnings, for example—outperform other stocks and that the key to investment success is to identify what these characteristics are. While investors have always searched for these characteristics, it was Ben Graham in his classic books on security analysis (with David Dodd) who converted these qualitative factors into quantitative screens that could be used to find

promising investments. In recent years, as data has become more easily accessible and computing power has expanded, these screens have been refined and extended, and variations are used by many portfolio managers and investors to pick stocks.

Ben Graham: The Father of Screening

Many value investors claim to trace their antecedents to Ben Graham and to use the book on security analysis that he co-authored with David Dodd in 1934 as their investment bible. But who was Ben Graham, and what were his views on investing? Did he invent screening, and do his screens still work?

Graham's Screens Ben Graham started life as a financial analyst and later was part of an investment partnership on Wall Street. While he was successful on both counts, his reputation was made in the classroom. He taught at Columbia and the New York Institute of Finance for more than three decades and during that period developed a loyal following among his students. In fact, much of Mr. Graham's fame comes from the success enjoyed by his students in the market.

It was in the first edition of *Security Analysis* that Ben Graham put his mind to converting his views on markets to specific screens that could be used to find undervalued stocks. While the numbers in the screens did change slightly from edition to edition, they preserved their original form and are as follows:

1. Earnings to price ratio that is double the AAA bond yield
2. PE of the stock has to be less than 40 percent of the average PE for all stocks over the past five years
3. Dividend Yield > Two-thirds of the AAA Corporate Bond Yield
4. Price < Two-thirds of Tangible Book Value¹
5. Price < Two-thirds of *Net Current Asset Value* (NCAV), where net current asset value is defined as liquid current assets including cash minus current liabilities
6. Debt-Equity Ratio (Book Value) has to be less than one
7. Current Assets > Twice Current Liabilities
8. Debt < Twice Net Current Assets
9. Historical Growth in EPS (over last 10 years) > 7%
10. No more than two years of declining earnings over the previous 10 years

¹ Tangible book value is computed by subtracting the value of intangible assets, such as goodwill, from the total book value.

Any stock that passes all 10 screens, Graham argued, would make a worthwhile investment. It is worth noting that while there have been a number of screens that have been developed by practitioners since these first appeared, many of them are derived from or are subsets of these original screens.

The Performance How well do Ben Graham's screens work when it comes to picking stocks? Henry Oppenheimer studied the portfolios obtained from these screens from 1974 to 1981 and concluded that you could have made an annual return well in excess of the market. As we will see later in this section, academics have tested individual screens—low PE ratios and high-dividend yields to name two—in recent years and have found that they indeed yield portfolios that deliver higher returns. Mark Hulbert, who evaluates the performance of investment newsletters, found newsletters that espoused to follow Graham did much better than other newsletters.

NUMBER WATCH

Stocks that pass the Graham screens: Take a look at the stocks that currently pass the Graham screens.

The only jarring note is that an attempt to convert the screens into a mutual fund that would deliver high returns did fail. In the 1970s, an investor named James Rea was convinced enough of the value of these screens that he founded a fund called the Rea-Graham Fund, which would invest in stocks based upon the Graham screens. While it had some initial successes, the fund floundered during the 1980s and early 1990s and was ranked in the bottom quartile for performance.

The best support for Graham's views on value investing do not come from academic studies or the Rea-Graham fund but from the success of many of his students at Columbia. While they chose diverse paths, many of them ended up managing money and posting records of extraordinary success. In the section that follows, we will look at the most famous of his students—Warren Buffett.

Warren Buffett: Sage from Omaha

No investor is more lionized or more relentlessly followed than Warren Buffet. The reason for the fascination is not difficult to fathom. He has risen to become one of the wealthiest men in the world with his investment

GRAHAM'S MAXIMS ON INVESTING

Janet Lowe, in her biography of Ben Graham, notes that while his lectures were based upon practical examples, he had a series of maxims that he emphasized on investing. Because these maxims can be viewed as the equivalent of the 10 commandments of value investing, they are worth revisiting:

1. Be an investor, not a speculator. Graham believed that investors bought companies for the long term, but speculators looked for short-term profits.
2. Know the asking price. Even the best company can be a poor investment at the wrong (too high) price.
3. Rake the market for bargains. Markets make mistakes.
4. Stay disciplined and buy the formula:

$$E (2g + 8.5) (T.Bond\ rate/Y)$$

where E = Earnings per share, g = Expected growth rate in earnings, Y is the yield on AAA-rated corporate bonds, and 8.5 is the appropriate multiple for a firm with no growth. For example, consider a stock with \$2 in earnings in 2002 and 10 percent growth rate when the Treasury bond rate was 5 percent and the AAA bond rate was 6 percent. The formula would have yielded the following price:

$$Price = \$2.00 (2 (10)+8.5) * (5/6) = \$47.5$$

If the stock traded at less than this price, you would buy the stock.

5. Regard corporate figures with suspicion (advice that carries resonance in the aftermath of recent accounting scandals).
6. Diversify. Do not bet it all on one or a few stocks.
7. When in doubt, stick to quality.
8. Defend your shareholder's rights. This topic was another issue on which Graham was ahead of his time. He was one of the first advocates of strong corporate governance.
9. Be patient. This follows directly from the first maxim.

It was Ben Graham who created the figure of Mr. Market, which was later much referenced by Warren Buffett. As described by Mr. Graham, Mr. Market was a manic-depressive who did not mind being ignored and was there to serve and not to lead you. Investors, he argued, could take advantage of Mr. Market's volatile disposition to make money.

acumen, and the pithy comments on the markets that he makes at stockholder meetings and in annual reports for his companies are widely read. In this section, we will consider briefly Buffett's rise to the top of the investment world.

Buffett's History How does one become an investment legend? Warren Buffett started a partnership with seven limited partners in 1956, when he

was 25, with \$105,000 in funds. He generated a 29 percent return over the next 13 years, developing his own brand of value investing during the period. One of his most successful investments during the period was an investment in American Express after the company's stock price tumbled in the early 1960s. Buffett justified the investment by pointing out that the stock was trading at far less than what the American Express card generated in cash flows for the company for a couple of years. By 1965, the partnership was at \$26 million and was widely viewed as successful.

The moment that made Buffett's reputation was his disbanding of the partnership in 1969 because he could not find any stocks to buy with his value investing approach. At the time of the disbanding, he said, "On one point, I am clear. I will not abandon a previous approach whose logic I understand, although I might find it difficult to apply, even though it may mean foregoing large and apparently easy profits to embrace an approach which I don't fully understand, have not practiced successfully and which possibly could lead to substantial permanent loss of capital." The fact that a money manager would actually put his investment philosophy above short-term profits, and the drop in stock prices in the years following this action, played a large role in creating the Buffett legend.

Buffett then put his share of the partnership (about \$25 million) into Berkshire Hathaway, a textile company whose best days seemed to be in the past. He used Berkshire Hathaway as a vehicle to acquire companies (GEICO in the insurance business and non-insurance companies such as See's Candy, Blue Chip Stamps, and Buffalo News) and to make investments in other companies (Am Ex, *The Washington Post*, Coca-Cola, and Disney). His golden touch seemed to carry over, and Berkshire Hathaway's stock price reflected his success (see Figure 8.1).

An investment of \$100 in Berkshire Hathaway in December 1988 would have outstripped the S&P 500 four-fold over the next 13 years.

As CEO of the company, Buffett broke with the established practices of other firms in many ways. He refused to fund the purchase of expensive corporate jets and chose to keep the company in spartan offices in Omaha, Nebraska. He also refused to split the stock as the price went ever higher to the point that relatively few individual investors could afford to buy a round lot in the company. On December 31, 2001, a share of Berkshire Hathaway stock was trading at \$75,600, making it by far the highest-priced listed stock in the United States. He insisted on releasing annual reports that were transparent and included his views on investing and the market, stated in terms that could be understood by all investors.

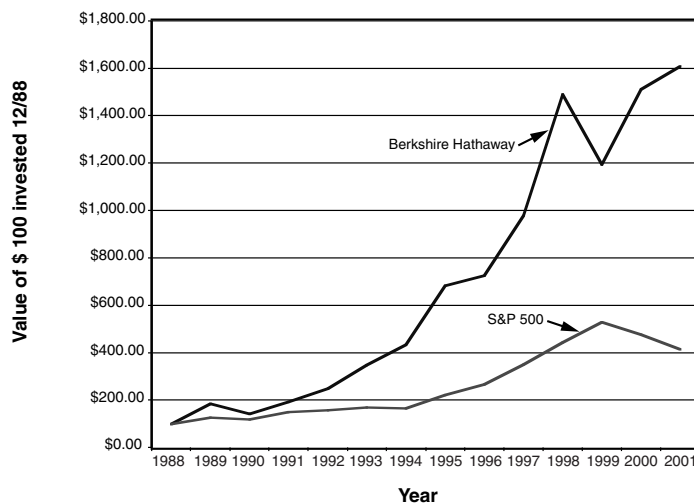


FIGURE 8.1 Berkshire Hathaway.

(Source: Raw data from Bloomberg)

BUFFETT'S TENETS

Roger Lowenstein, in his excellent book on Buffett, suggests that Buffett's success can be traced to his adherence to the basic notion that when you buy a stock, you are buying an underlying business.

Business Tenets:

- The business the company is in should be *simple and understandable*. In fact, one of the few critiques of Buffett was his refusal to buy technology companies, whose business he said was difficult to understand.
- The firm should have a *consistent operating history*, manifested in operating earnings that are stable and predictable.
- The firm should be in a business with *favorable long-term prospects*.

Management Tenets:

- The managers of the company should be *candid*. As evidenced by the way he treated his own stockholders, Buffett put a premium on managers he trusted. Part of the reason he made an investment in *The Washington Post* was the high regard that he had for Katherine Graham, who inherited the paper from her husband.

(Continued)

- The managers of the company should be *leaders and not followers*. In practical terms, Buffett was looking for companies that mapped out their own long-term strategies rather than imitating other firms.

Financial Tenets:

- The company should have a *high return on equity*, but rather than base the return on equity on accounting net income, Buffett used a modified version of what he called owner earnings:

$$\text{Owner Earnings} = \text{Net income} + \text{Depreciation and Amortization} - \text{Capital Expenditures}$$

Harking back to Chapter 4, where we looked at valuation, note that this concept is very close to a free cash flow to equity.

- The company should have *high and stable profit margins* and a history of creating value for its stockholders.

Market Tenets:

- In determining value, much has been made of Buffett's use of a risk-free rate to discount cash flows. Because he is known to use conservative estimates of earnings and because the firms he invests in tend to be stable firms, it looks to us like he makes his risk adjustment in the cash flows rather than the discount rate.²
- In keeping with Buffett's views of Mr. Market as capricious and moody, even valuable companies can be bought at attractive prices when investors turn away from them.

Assessing Buffett It might be presumptuous of us to assess an investor who has acquired mythic status, but is Warren Buffett worthy of his reputation? If so, what accounts for his success, and can it be replicated? We believe that his reputation is well deserved and that his extended run of success cannot be attributed to luck. While he has had his bad years, he has always bounced back in subsequent years. The secret to his success seems to rest on the long view he brings to companies and his discipline—the unwillingness to change investment philosophies even in the midst of short-term failure.

Much has been made of the fact that Buffett was a student of Graham at Columbia University and their adherence to value investing. Warren Buffett's investment strategy is more complex than Graham's original passive screening approach. Unlike Graham, whose investment strategy was inherently conserv-

²In traditional capital budgeting, this approach is called the certainty equivalent approach, where each expected cash flow is replaced with a lower cash flow, representing its certainty equivalent.

ative, Buffett's strategy seems to extend across a far more diverse range of companies, from high-growth firms like Coca-Cola to staid firms such as Blue Chip Stamps. While Graham and Buffett both might use screens to find stocks, the key difference as we see it between the two men is that Graham strictly adhered to quantitative screens whereas Buffett has been more willing to consider qualitative screens. For instance, Buffett has always put a significant weight on both the credibility and the competence of top managers when investing in a company.

In more recent years, he has had to struggle with two byproducts of his success. Buffett's record of picking winners has attracted a crowd of imitators who follow his every move and buy everything he buys, making it difficult for him to accumulate large positions at attractive prices. At the same time, the larger funds at his disposal imply that he is investing far more than he did two or three decades ago in each of the companies that he takes a position in, which makes it more difficult for him to be a passive investor. It should come as no surprise, therefore, that he is a much more activist investor than he used to be, serving on boards of *The Washington Post* and other companies and even operating as interim chairman of Salomon Brothers during the early 1990s.

Be Like Buffett? Warren Buffett's approach to investing has been examined in detail, and it is not a complicated one. Given his track record, you would expect a large number of imitators. Why, then, do we not see other investors using his approach to replicate his success? There are three reasons:

- Markets have changed since Buffett started his first partnership. His greatest successes occurred in the 1960s and the 1970s, when relatively few investors had access to information about the market and institutional money management was not dominant. Even Warren Buffett would have difficulty replicating his success in today's market, where information on companies is widely available and dozens of money managers claim to be looking for bargains in value stocks.
- In recent years, Buffett has adopted a more activist investment style and has succeeded with it. To succeed with this style as an investor, though, you would need substantial resources and have the credibility that comes with investment success. There are few investors, even among successful money managers, who can claim this combination.
- The third ingredient of Buffett's success has been patience. As he has pointed out, he does not buy stocks for the short term but businesses for the long term. He has often been willing to hold stocks that he believes to be undervalued through disappointing years. In those same years, he has faced no pressure from impatient investors because stockholders in Berkshire Hathaway have such high regard for him.

Many money managers who claim to have the same long-time horizon that Buffett has come under pressure from investors wanting quick results.

In short, it is easy to see what Warren Buffett did right over the last half century, but it will be very difficult for an investor to replicate that success. In the sections that follow, we will examine both the original value investing approach that brought him success in the early part of his investing life and the more activist value investing that has brought him success in recent years.

Value Screens

The Graham approach to value investing is a screening approach, where investors adhere to strict screens (like the ones described earlier in the chapter) and pick stocks that pass those screens. Because the data needed to screen stocks is widely available today, the key to success with this strategy seems to be picking the right screens. In this section, we will consider a number of screens used to pick value stocks and the efficacy of these screens.

Book Value Multiples The book value of equity measures what accountants consider to be the value of equity in a company. The market value of equity is what investors attach as a value to the same equity. Investors have used the relationship between price and book value in a number of investment strategies, ranging from the simple to the sophisticated. In this section, we will begin by looking at a number of these strategies and the empirical evidence on their success.

Buy Low Price-to-Book Value Companies Some investors argue that stocks that trade at low price-book value ratios are undervalued, and there are several studies that seem to back this strategy. Rosenberg, Reid, and Lanstein looked at stock returns in the United States between 1973 and 1984 found that the strategy of picking stocks with high book-price ratios (low price-book values) would have yielded an excess return of about 4.5 percent a year. In another study of stock returns between 1963 and 1990,³ firms were classified on the basis of book-to-price ratios into 12 portfolios, and firms in the lowest book-to-price (higher P/BV) class earned an average annual return of 3.7 percent a year while

³This study was done by Fama and French in 1992 in the course of an examination of the effectiveness of different risk and return models in finance. They found that price-to-book explained more of the variation across stock returns than any other fundamental variable, including market capitalization.

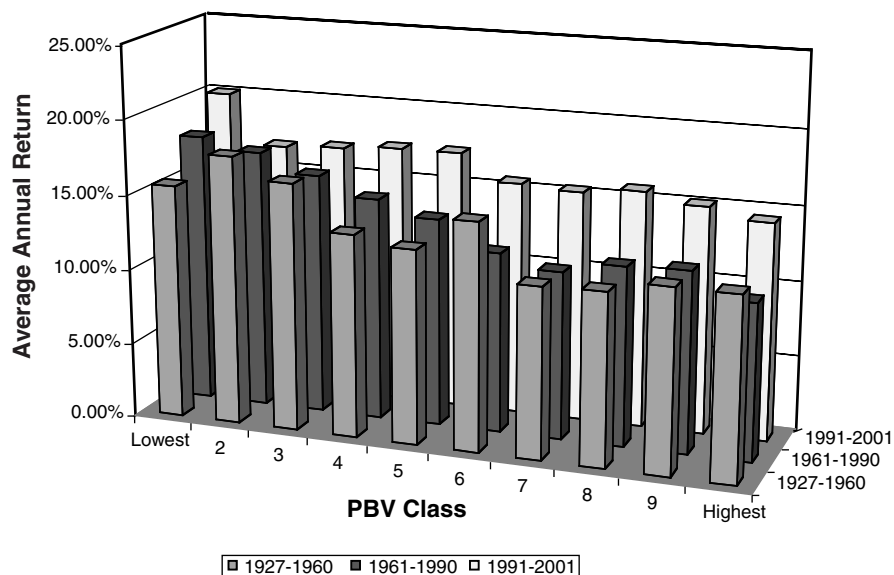


FIGURE 8.2 PBV classes and returns—1927–2001.

(Source: Raw data from French)

firms in the highest book-to-price (lowest P/BV) class earned an average annual return of 24.31 percent for the 1963–1990 period. We updated these studies to consider how well a strategy of buying low price-to-book value stocks would have done from 1991 to 2001 and compared these returns to returns in earlier time periods. The results are summarized in Figure 8.2.

The lowest price-to-book value stocks continued to earn higher annual returns than the high price-to-book value stocks during the 1990s.

These findings are not unique to the United States. A 1991 study found that the book-to-market ratio had a strong role in explaining the cross-section of average returns on Japanese stocks.⁴ Another study extended the analysis of price-book value ratios across other international markets, and found that stocks with low price-book value ratios earned excess returns in every market analyzed between 1981 and 1992.⁵ The annualized estimates of

⁴ Chan, Hamao, and Lakonishok (1991) did this study and concluded that low price-to-book value stocks in Japan earned a considerable premium over high price-to-book value stocks.

⁵ Capaul, Rowley, and Sharpe (1993) did this study on international markets.

TABLE 8.1 Annualized Estimates of the Return Differential

Country	Added Return to Low P/BV Portfolio
France	3.26%
Germany	1.39%
Switzerland	1.17%
U.K.	1.09%
Japan	3.43%
U.S.	1.06%
Europe	1.30%
Global	1.88%

the return differential earned by stocks with low price-book value ratios, over the market index, are shown in Table 8.1 in each of the markets studied: Thus, a strategy of buying low price-to-book value stocks seems to hold out much promise. Why don't more investors not use it then, you might ask? We will consider some of the possible problems with this strategy in the next section and screens that can be added on to remove these problems.

NUMBER WATCH

Stocks with lowest price-to-book ratios: Take a look at the stocks with the lowest price-to-book value ratios in the U.S.

What Can Go Wrong? Stocks with low price-to-book value ratios earn excess returns relative to high price-to-book stocks if we use conventional measures of risk and return, such as betas. But, as noted in earlier chapters, these conventional measures of risk are imperfect and incomplete. Low price-book value ratios might operate as a measure of risk, because firms with prices well below book value are more likely to be in financial trouble and go out of business. Investors therefore have to evaluate whether the additional returns made by such firms justifies the additional risk taken on by investing in them.

The other limitation of a strategy of buying low price-to-book value stocks is that the low book value multiples might be well deserved if companies earn and are expected to continue earning low returns on equity. In fact, we considered the relationship between

price-to-book value ratios and returns on equity in Chapter 4. For a stable growth firm, for instance, the price-to-book value ratio can be written as follows:

$$\text{Price/Book} = \frac{(\text{Return on Equity} - \text{Expected Growth Rate})}{(\text{Return on Equity} - \text{Cost of Equity})}$$

Stocks with low returns on equity should trade at a low price-to-book value ratio. In fact, a firm that is expected to earn a return on equity that is less than its cost of equity in the long term should trade at a discount on book value. In summary, then, as an investor you would want stocks with low price-to-book ratios that also had reasonable (if not high) returns on equity and limited exposure to risk.

Composite Screens If low price-to-book value ratios might yield riskier stocks than average or stocks that have lower returns on equity, a more discerning strategy would require us to find mismatches—stocks with low price-to-book ratios, low default risk, and high returns on equity. If we used debt ratios as a proxy for default risk and the accounting return on equity in the past year as the proxy for the returns that will be earned on equity in the future, we would expect companies with low price-to-book value ratios, low default risk, and high return on equity to be undervalued. This proposition was partially tested by screening all NYSE stocks from 1981 to 1990 on the basis of price-book value ratios and returns on equity at the end of each year and creating two portfolios—an undervalued portfolio with low price-book value ratios (in the bottom quartile of all stocks) and high returns on equity (in the top quartile of all stocks) and an overvalued portfolio with high price-book value ratios (in the top quartile of all stocks) and low returns on equity (in the bottom quartile of all stocks)—each year and then estimating excess returns on each portfolio in the following year. Table 8.2 summarizes returns on these two portfolios for each year from 1982 to 1991.

NUMBER WATCH

Stocks with low price-to-book ratios and high returns on equity: Take a look at the stocks that are in the bottom quartile for price to book and the top for ROE.

The undervalued portfolios significantly outperformed the overvalued portfolios in eight out of 10 years, earning an average of 14.99 percent more per year between 1982 and 1991, and also had an average return significantly higher than the S&P 500. While we did not adjust for default risk in this test, you could easily add it as a third variable in the screening process.

TABLE 8.2 Returns on Mismatched Portfolios: Price to Book and ROE

Year	Undervalued Portfolio	Overvalued Portfolio	S & P 500
1982	37.64%	14.64%	40.35%
1983	34.89%	3.07%	0.68%
1984	20.52%	-28.82%	15.43%
1985	46.55%	30.22%	30.97%
1986	33.61%	0.60%	24.44%
1987	-8.80%	-0.56%	-2.69%
1988	23.52%	7.21%	9.67%
1989	37.50%	16.55%	18.11%
1990	-26.71%	-10.98%	6.18%
1991	74.22%	28.76%	31.74%
1982-91	25.60%	10.61%	17.49%

Market Value to Replacement Cost—Tobin's Q Tobin's Q provides an alternative to the price-book value ratio by relating the market value of the firm to the replacement value of the assets in place. When inflation has pushed up the price of the assets or where technology has reduced the price of the assets, this measure might provide a better measure of undervaluation:

Tobin's Q = Market value of assets / Replacement Value of Assets in place

While this measure has some advantages in theory, it does have practical problems. The first is that the replacement value of some assets might be difficult to estimate, largely because they are so specific to each firm. The second is that even where replacement values are available, substantially more information is needed to construct this measure than the traditional price-book value ratio. In practice, analysts often use shortcuts to arrive at Tobin's Q, using book value of assets as a proxy for replacement value. In these cases, the only distinction between this measure and the price/book value ratio is that this ratio is stated in terms of the entire firm (rather than just the equity).

The value obtained from Tobin's Q is determined by two variables—the market value of the firm and the replacement cost of assets in place. In inflationary times, where the cost of replacing assets increases significantly, Tobin's Q will generally be lower than the unadjusted price-book value ratio. Conversely, if the cost of replacing assets declines much faster than

the book value, Tobin's Q will generally be higher than the unadjusted price-book value ratio.

Many studies in recent years have suggested that a low Tobin's Q is indicative of an undervalued or a poorly managed firm, which is more likely to be taken over. One study concludes that firms with a low Tobin's Q are more likely to be taken over for purposes of restructuring and increasing value.⁶ That study also found that shareholders of high Q bidders gain significantly more from successful tender offers than shareholders of low Q bidders.

Earnings Multiples Investors have long argued that stocks with low price-earnings ratios are more likely to be undervalued and earn excess returns. In fact, it was the first of Ben Graham's 10 screens for undervalued stocks. In this section, we will examine whether it stands up to the promises made by its proponents.

Empirical Evidence on Low PE Stocks Studies that have looked at the relationship between PE ratios and excess returns have consistently found that stocks with low PE ratios earn significantly higher returns than stocks with high PE ratios over long-time horizons. Figure 8.3 summarizes annual returns by PE ratio classes for stocks from 1952 to 2001. The classes were created based upon PE ratios at the beginning of each year and returns were measured during the course of the year.

NUMBER WATCH

Stocks with highest low PE ratios: Take a look at the stocks with the lowest PE ratios in the U.S.

Firms in the lowest PE ratio class earned 10 percent more each year than those in the highest PE class between 1952 and 1971, about 9 percent more each year between 1971 and 1990, and about 12 percent more each year between 1991 and 2001.

The excess returns earned by low PE ratio stocks also persist in other international markets. Table 8.3 summarizes the results of studies looking at this phenomenon in markets outside the United States.

⁶Lang, Stulz and Walkling (1989) looked at the relationship between Tobin's Q and acquisitions.

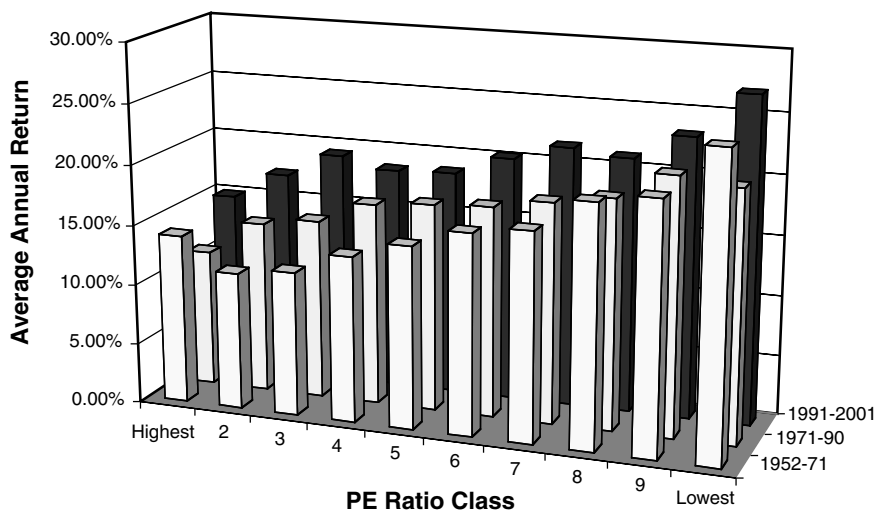


FIGURE 8.3 Returns on PE ratio classes—1952–2001.

(Source: Raw data from French)

TABLE 8.3 Excess Returns on Low P/E Ratio Stocks by Country: 1989–1994

Country	Annual Premium Earned by Lowest P/E Stocks (Bottom Quintile) over Market
Australia	3.03%
France	6.40%
Germany	1.06%
Hong Kong	6.60%
Italy	14.16%
Japan	7.30%
Switzerland	9.02%
U.K.	2.40%

Annual premium: Premium earned over an index of equally weighted stocks in that market between January 1, 1989 and December 31, 1994. These numbers were obtained from a Merrill Lynch Survey of Proprietary Indices.

Thus, the results seem to hold up as we go across time and markets, notwithstanding the fact that the findings have been widely disseminated for more than 20 years.

What Can Go Wrong? Given the types of returns that low PE ratio stocks earn, should we rush out and buy such stocks? While such a portfolio might include a number of undervalued companies, it can also contain other less desirable companies.

- (a) *Companies with high-risk earnings:* The excess returns earned by low price-earnings ratio stocks can be explained using a variation of the argument used for low price to book companies—that is, the risk of low PE ratios stocks is understated in the CAPM. It is entirely possible that a portfolio of low PE stocks will include stocks where there is a great deal of uncertainty about future operating earnings. A related explanation, especially in the aftermath of the accounting scandals of recent years, is that accounting earnings are susceptible to manipulation. If earnings are high not because of a firm's operating efficiency but because of one-time items such as gains from divestiture or questionable items such as income from pension funds, you might discount these earnings more (leading to a lower PE ratio).
- (b) *Tax costs:* A second possible explanation that can be given for this phenomenon, which is consistent with an efficient market, is that low PE ratio stocks generally have large dividend yields, which would have created a larger tax burden for investors because dividends were taxed at higher rates during much of this period.
- (c) *Low growth:* A third possibility is that the price earnings ratio is low because the market expects future growth in earnings to be low or even negative. Many low PE ratio companies are in mature businesses where the potential for growth is minimal. As an investor, therefore, you have to consider whether the tradeoff of a lower PE ratio for lower growth works in your favor.

Finally, many of the issues we raised about how accountants measure earnings will also be issues when you use PE ratios. For instance, the fact that research and development is expensed at technology firms rather than capitalized might bias their earnings down (and their PE ratios upwards).

Modified Earnings Multiples The price earnings ratio is computed by dividing the current price by the current earnings per share. The latter is both

volatile and subject to measurement error. Are there ways in which we can modify the ratio to make it a better tool for investment analysis? There are several variations that may yield more reliable values:

1. *Price to normalized earnings*: When your primary concern is volatility in earnings, as is often the case with cyclical and commodity companies, you can average earnings across a cycle (an economic cycle for a cyclical firm or a price cycle for a commodity firm) and use it as a measure of normalized earnings. Only firms that have low price to normalized earnings would be considered cheap.
2. *Price to adjusted earnings*: When your concern is with accounting standards and measurement issues, you may need to restate earnings to reflect your concerns. For instance, Standard and Poor's recently came up with a measure of operating earnings for companies where they adjust the earnings for the option grants (to management) and remove earnings from pension funds.
3. *Price to cash earnings*: When you have non-cash items (such as depreciation and amortization) significantly affecting measured earnings, you could argue that looking at the price as a multiple of cash earnings might give you a better measure of value. In the simplest form, you add back non-cash charges to earnings:

$$\text{Price/ Cash Earnings} = \text{Price} / (\text{Earnings} + \text{Depreciation} \ \& \ \text{Amortization})$$

In its more complex forms, you adjust for changes in non-cash working capital to convert accrual earnings to cash earnings.

Once you have the modified earnings multiples for firms, you can screen to find the stocks with the lowest multiples of earnings. There are two final tests that you need to run on this list to ensure that your portfolio is not composed of low growth, high-risk companies:

- (a) *Check for risk*: You might want to introduce a screen for risk, using either market variables (such as standard deviation in stock prices) or accounting variables (such as debt to equity ratios), and only invest in stocks with below-average risk.
- (b) *Assess growth*: While it would be unrealistic to expect low PE stocks to have high growth, you can still apply minimal screens for growth. For instance, you might want to eliminate firms where earnings have been declining for the past few years (with no end in sight) or are growing at rates lower than their sector averages.

ENTERPRISE VALUE TO EBITDA MULTIPLES

The earnings per share of a firm reflect not just the earnings from operations of a firm but all other income as well. Thus, a firm with substantial holdings of cash and marketable securities might generate enough income on these investments to push up earnings. In addition, earnings per share and equity multiples are affected by how much debt a firm has and what its interest expenses are. These concerns, in conjunction with the volatility induced in earnings by non-cash expenses (such as depreciation) and varying tax rates has led some investors to seek a more stable, cash-based measure of pre-debt earnings. One measure that has acquired a following is called the enterprise value to EBITDA multiple and is defined as follows:

Enterprise Value to EBITDA =

$$\frac{(\text{Market Value of Equity} + \text{Market Value of Debt} - \text{Cash \& Marketable Securities})}{\text{Earnings before interest, taxes, depreciation, and amortization}}$$

Why, you might wonder, do we add back debt and subtract out cash? Because EBITDA is before interest expenses, you would be remiss if you did not add back debt. Analysts who look at Price/EBITDA will conclude, for instance, that highly levered firms are cheap. Because we do not count the income from the cash and marketable securities in EBITDA, we net it out of the numerator as well.

The sectors where this multiple makes the most sense tend to be heavy infrastructure businesses—steel, telecommunications, and cable are good examples. In these sectors, you can screen for stocks with low enterprise value to EBITDA. As a note of caution, though, in many cases firms that look cheap on an enterprise value to EBITDA basis often have huge reinvestment needs—capital expenditures eat up much of the EBITDA—and poor returns on capital. Thus, we would recommend adding two more screens when you use this multiple—low reinvestment needs and high return on capital.

Revenue Multiples As investors have become more wary about trusting accounting earnings, an increasing number have started moving up the income statement looking for numbers that are less susceptible to accounting decisions. Not surprisingly, many have ended up screening for stocks that trade at low multiples of revenues. But how well have revenue multiples worked at picking under valued stocks? In this section, we will begin by looking at that evidence and then consider some of the limitations of this strategy.

Empirical Evidence on Price to Sales Ratios There is far less empirical evidence, either for or against, on price to sales ratios than there is on price earnings or price-to-book value ratios. In one of the few direct tests of the price-sales ratio, Senchack and Martin in 1987 compared the performance of low price-sales ratio portfolios with low price-earnings ratio portfolios and concluded that the low price-sales ratio portfolio outperformed the market but not the low price-earnings ratio portfolio. They also found that the low price-earnings ratio strategy earned more consistent returns than a low price-sales ratio strategy, and that a low price-sales ratio strategy was more biased towards picking smaller firms. In 1988, Jacobs and Levy tested the value of low price-sales ratios (standardized by the price-sales ratio of the industries in which the firms operated) as part of a general effort to disentangle the forces influencing equity returns. They concluded that low price-sales ratios, by themselves, yielded an excess return of about 2 percent a year between 1978 and 1986. Even when other factors were thrown into the analysis⁷, the price-sales ratios remained a significant factor in explaining excess returns (together with price-earnings ratio and size).

NUMBER WATCH

Stocks with lowest price to sales ratios: Take a look at the stocks with the lowest price to sales ratios.

We examined how a portfolio of low price to sales ratios would have done relative to a portfolio of high price to sales ratios from 1991 to 2001. We found that the returns on the low price to sales ratio portfolio were no greater than the returns earned on a high price to sales ratio portfolio over this decade, reflecting the surge of new economy companies that entered the market during the period with huge price to sales ratios.

What Can Go Wrong? While firms with low price to sales ratios may deliver excess returns over long periods, it should be noted, as with low price to book and price earnings ratios, that there are firms that trade

⁷Jacobs and Levy considered 25 different anomaly measures based upon past studies, including size, PE, P/BV, earnings momentum measures, relative strength, and neglect.

at low price to sales ratios that deserve to trade at those values. In addition to risk being the culprit again—higher risk companies should have lower price to sales ratios—there are other possible explanations.

1. *High leverage*: One of the problems with using price to sales ratios is that you are dividing the market value of equity by the revenues of the firm. When a firm has borrowed substantial amounts, it is entirely possible that its equity will trade at a low multiple of revenues. If you pick stocks with low price to sales ratios, you might very well end up with a portfolio of the most highly levered firms in each sector.
2. *Low margins*: Firms that operate in businesses with little pricing power and poor net profit margins will trade at low multiples of revenues. The reason is intuitive. Ultimately, your value comes not from your capacity to generate revenues but from the earnings that you have on those revenues.

The simplest way to deal with the first problem is to redefine the revenue multiple. If you use enterprise value (which adds debt to the numerator and subtracts out cash) instead of market value of equity in the numerator, you will remove the bias towards highly levered firms. For the second problem, you would need to screen stocks for reasonable margins.

NUMBER WATCH

Stocks with highest low price to sales and high margins: Take a look at the stocks that are in the bottom quartile for price to sales and the top quartile for margin.

Composite Revenue Multiples The significance of profit margins in explaining price-sales ratios suggests that screening on the basis of both price-sales ratios and profit margins should be more successful at identifying undervalued securities. To test this proposition, the stocks on the New York Stock Exchange were screened on the basis of price-sales ratios and profit margins to create undervalued portfolios (price-sales ratios in the lowest quartile and profit margins in the highest quartile) and overvalued portfolios (price-sales ratios in the highest quartile and profit margins in the lowest quartile) at the end of each year from 1981 to 1990. The returns on these portfolios in the following year are summarized in Table 8.4.

TABLE 8.4 Returns on Mismatched Portfolios—PS and Net Margins

Year	Undervalued Portfolio	Overvalued Portfolio	S & P 500
1982	50.34%	17.72%	40.35%
1983	31.04%	6.18%	0.68%
1984	12.33%	-25.81%	15.43%
1985	53.75%	28.21%	30.97%
1986	27.54%	3.48%	24.44%
1987	-2.28%	8.63%	-2.69%
1988	24.96%	16.24%	9.67%
1989	16.64%	17.00%	18.11%
1990	-30.35%	-17.46%	6.18%
1991	91.20%	55.13%	31.74%
1982-91	23.76%	15.48%	17.49%

During the period, the undervalued portfolios outperformed the overvalued portfolios in six out of the 10 years, earning an average of 8.28 percent more per year, and averaged a significantly higher return than the S&P 500.

Dividend Yields While PE ratios, price-to-book ratios, and price to sales ratios might be the most widely used value screens, there are some investors who view the dividend yield as the only secure measure of returns. Earnings, they argue, are not only illusory but are also out of reach for most investor in stocks because a significant portion might get reinvested. Following up on this logic, stocks with high dividend yields should be better investments than stocks with low dividend yields.

Does this approach yield positive results? Between 1952 and 2001, for instance, stocks with high dividend yields earned higher annual returns than stocks with low dividend yields, but the relationship is neither as strong or as consistent as the results obtained from the PE ratio or the PBV ratio screens. Figure 8.4 summarizes returns earned by dividend yield class from 1952 to 2001, broken down by sub-periods.

The highest dividend yield stocks earned higher returns than lower dividend yield stocks in the 1952-1971 and the 1991-2001 time periods, but the stocks with the lowest returns were the stocks with average dividends.

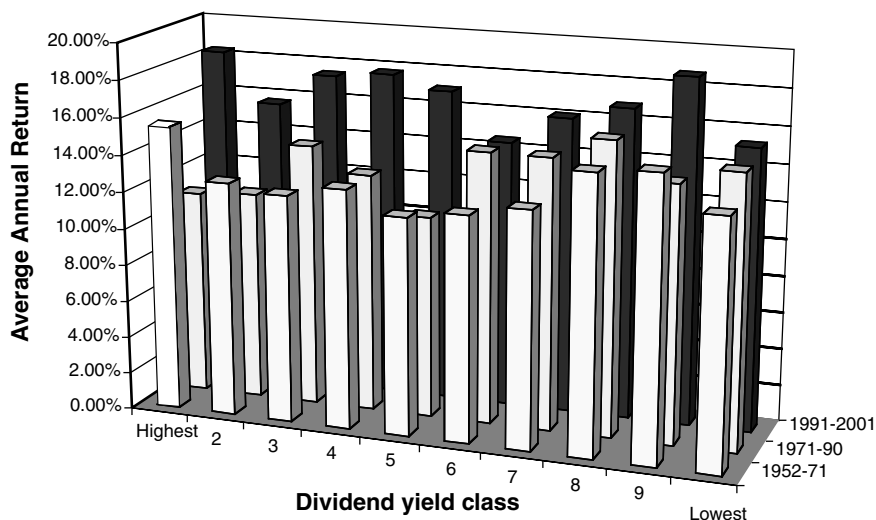


FIGURE 8.4 Returns on dividend yield classes—1952–2001.

(Source: Raw data from French)

In the 1971–1990 time period, stocks with lower dividend yields outperformed stocks with higher dividend yields.

An extreme version of this portfolio is the strategy of investing in the “Dow Dogs,” the ten stocks with the highest dividend yields in the Dow 30. Proponents of this strategy claim that they generate excess returns from it, but they compare the returns to what you would have made on the Dow 30 and the S&P 500, and do not adequately adjust for risk. A portfolio with only 10 stocks in it is likely to have a substantial amount of firm-specific risk. A study by McQueen, Shields and Thorley in 1997 examined this strategy and concluded that while the raw returns from buying the top dividend paying stocks are higher than the returns on the rest of the index, adjusting for risk and taxes eliminates all the excess returns. A study by Hirschey in 2000 confirmed this finding.

NUMBER WATCH

Stocks with highest dividend yields: Take a look at the stocks with the highest dividend yields in the United States.

There are three final considerations in a high-dividend strategy. The first is that you will have a much greater tax cost on this strategy, because dividends are taxed at a higher rate than capital gains. The second is that some stocks with high dividend yields might currently be paying much more in dividends than they can afford. It is only a matter of time, then, before the dividends are cut. The third is that any stock that pays a substantial portion of its earnings as dividends is reinvesting less and can therefore expect to grow at a much lower rate.

Determinants of Success

If all we have to do to earn excess returns is invest in stocks that trade at low multiples of earnings, book value, or revenues, more investors should employ these screens to pick their portfolios, right? And assuming that they do, should they not beat the market by a healthy amount?

To answer the first question, there are a large number of portfolio managers and individual investors who employ either the screens we have referred to in this section or variants of these screens to pick stocks. Unfortunately, their performance does not seem to match up to the returns that we see earned on the hypothetical portfolios. Why might that be? We can think of several reasons:

- *Time horizon:* All the studies quoted earlier look at returns over time horizons of five years or greater. In fact, low price-book value stocks have underperformed high price-book value stocks over shorter time periods. The same can be said about PE ratios and price to sales ratios.
- *Dueling screens:* If one screen earns you excess returns, three should do even better seems to be the attitude of some investors who proceed to multiply the screens they use. They are assisted in this process by the easy access to both data and screening technology. There are Web sites (many of which are free) that allow you to screen stocks (at least in the United States) using multiple criteria.⁸ The problem, though, is that the use of one screen seems to undercut the effectiveness of others, leading to worse rather than better portfolios.
- *Absence of diversification:* In their enthusiasm for screens, investors sometimes forget the first principles of diversification. For instance,

⁸ Stockscreener.com, run by Hoover, is one example. You can screen all listed stocks in the United States using multiple criteria, including all of the criteria discussed in this chapter.

it is not uncommon to see stocks from one sector disproportionately represented in portfolios created using screens. A screen from low PE stocks might deliver a portfolio of banks and utilities, whereas a screen of low price to book ratios might deliver stocks from a sector with high infrastructure investments. In 2001, for instance, many telecom stocks traded at a discount on their book value.

- *Taxes and transactions costs:* As in any investment strategy, taxes and transactions costs can take a bite out of returns, although the effect should become smaller as your time horizon lengthens. Some screens, though, can increase the effect of taxes and transactions costs. For instance, screening for stocks with high dividends and low PE ratios will yield a portfolio that has much higher tax liabilities (because of the dividends).
- *Success and imitation:* In some ways, the worst thing that can occur to a screen (at least from the viewpoint of investors using the screen) is that its success is publicized and that a large number of investors begin using that same screen at the same time. In the process of creating portfolios of the stocks they perceive to be undervalued, they might very well eliminate the excess returns that drew them to the screen in the first place.

To be a successful screener, you would need to be able to avoid or manage these problems. In particular, you need to have a long time horizon, pick your combination of screens well, and ensure that you are reasonably diversified. If a screen succeeds, you will probably need to revisit it at regular intervals to ensure that market learning has not reduced the efficacy of the screen.

THE CONTRARIAN VALUE INVESTOR

The second strand of value investing that we will examine is contrarian value investing. In this manifestation of value investing, you begin with the belief that stocks that are beaten down because of the perception that they are poor investments (because of poor projects, default risk or bad management) tend to get punished too much by markets just as stocks that are viewed as good investments get rewarded too much. Within contrarian investing, we would include several strategies ranging from relatively unsophisticated ones like buying the biggest losers in the market in the prior period to vulture and distressed security investing, where you use sophisticated quantitative techniques to highlight securities (both stocks and bonds) issued by troubled firms that may be undervalued.

Basis for Contrarian Investing

Do markets overreact to new information and systematically over price stocks when the news is good and under price stocks when the news is bad? There is some evidence that suggests that markets do overreact to both good and bad news, especially in the long term, and that stocks that have done exceptionally well or poorly in a period tend to reverse course in the following period, but only if the period is defined in terms of years rather than weeks or months.

Strategies and Evidence

While contrarian investing takes many forms, we will consider three strategies in this section. We will begin with the simple strategy of buying stocks that have gone down the most over the previous period, move on to a slightly more sophisticated process of playing the expectations game, buying stocks where expectations have been set too low and selling stocks where expectations are too high and end the section by looking at a strategy of investing in securities issued by firms in significant operating and financial trouble.

Buying the Losers In Chapter 7, we presented evidence that stocks reverse themselves over long periods in the form of negative serial correlation—that is, stocks that have gone up the most over the past five years are more likely to go down over the next five years than other stocks. Conversely, stocks that have gone down the most over the past five years are more likely to go up than other stocks. In this section, we will consider a strategy of buying the latter and selling or avoiding the former.

The Evidence How would a strategy of buying the stocks that have gone down the most over the past few years perform? To isolate the effect of price reversals on the extreme portfolios, DeBondt and Thaler constructed a winner portfolio of 35 stocks, which had gone up the most over the prior year, and a loser portfolio of 35 stocks, which had gone down the most over the prior year, each year from 1933 to 1978. They examined returns on these portfolios for the sixty months following the creation of the portfolio. Figure 8.5 graphs the returns on both the loser and winner portfolios.

This analysis suggests that an investor who bought the 35 biggest losers over the previous year and held for five years would have generated a cumulative abnormal return of approximately 30 percent over the market and about 40 percent relative to an investor who bought the winner portfolio.

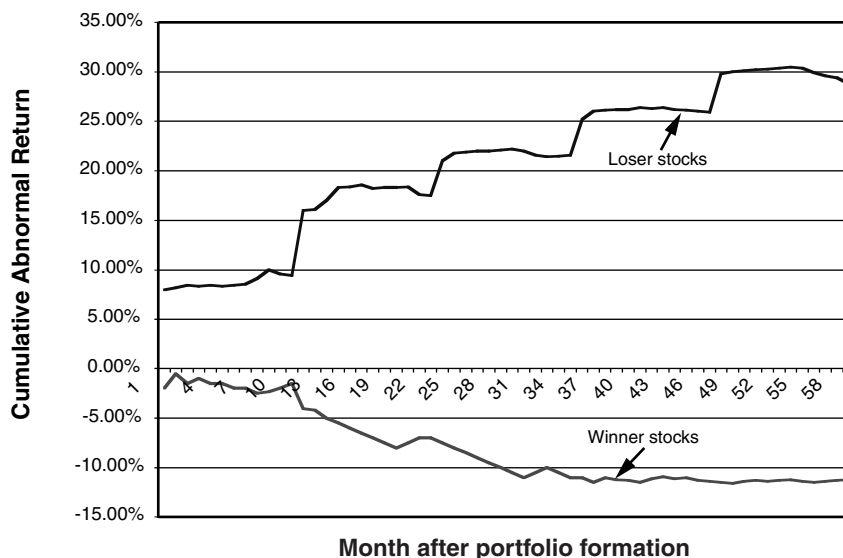


FIGURE 8.5 Cumulative abnormal returns—winners versus losers.

(Source: DeBondt & Thaler)

NUMBER WATCH

Loser stocks: Take a look at the stocks that went down the most over the past year.

This evidence is consistent with market overreaction and suggests that a simple strategy of buying stocks that have gone down the most over the last year or years might yield excess returns. Because the strategy is based entirely on past prices, you could argue that this strategy shares more with charting—consider it a long term contrarian indicator—than it does with value investing.

Caveats There are many academics as well as practitioners who suggest that these findings might be interesting but that they overstate potential returns on loser portfolios for several reasons:

- There is evidence that loser portfolios are more likely to contain low-priced stocks (selling for less than \$5) that generate higher transactions

costs and are also more likely to offer heavily skewed returns; that is, the excess returns come from a few stocks making phenomenal returns rather than from consistent performance.

- Studies also seem to find loser portfolios created every December earn significantly higher returns than portfolios created every June. This statement suggests an interaction between this strategy and tax loss selling by investors. Because stocks that have gone down the most are likely to be sold towards the end of each tax year (which ends in December for most individuals) by investors, their prices might be pushed down by the tax loss selling.
- There seems to be a size effect when it comes to the differential returns. When you do not control for firm size, the loser stocks outperform the winner stocks, but when you match losers and winners of comparable market value, the only month in which the loser stocks outperform the winner stocks is January.⁹
- The final point to be made relates to time horizon. As we noted in the last chapter, while there may be evidence of price reversals in long periods (three to five years), there is evidence of price momentum—losing stocks are more likely to keep losing and winning stocks to keep winning—if you consider shorter periods (six months to a year). An earlier study that we referenced, by Jegadeesh and Titman tracked the difference between winner and loser portfolios¹⁰ by the number of months that you held the portfolios. Their findings are summarized in Figure 8.6.

There are two interesting findings in this graph. The first is that the winner portfolio actually outperforms the loser portfolio in the first 12 months. The second is that while loser stocks start gaining ground on winning stocks after 12 months, it took them 28 months in the 1941–1964 time period to get ahead of them and the loser portfolio does not start outperforming the winner portfolio even with a 36-month time horizon in the 1965–1989 time period. The payoff to buying losing companies might depend very heavily on whether you have the capacity to hold these stocks for long time periods.

Playing the Expectations Game A more sophisticated version of contrarian investing is to play the expectations game. If you are right about markets overreacting to recent events, expectations will be set too high for stocks that have been performing well and too low for stocks that have been

⁹ See “Size, Seasonality and Stock Market Overreaction” by Zarowin 1990.

¹⁰ The definition of winner and loser portfolios is slightly different in this study. The portfolios were created based upon returns over the previous six months.

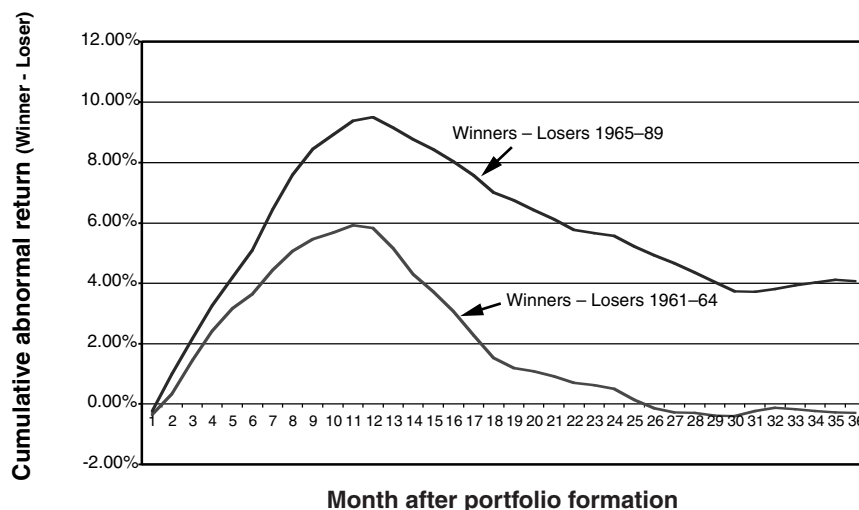


FIGURE 8.6 Differential returns—winner minus loser portfolios.

(Source: Jegadeesh & Titman)

doing badly. If you can isolate these companies, you can buy the latter and sell the former. In this section, we will consider a couple of ways in which you can invest on expectations.

Bad Companies Can Be Good Investments Any investment strategy that is based upon buying well-run companies and expecting the growth in earnings in these companies to carry prices higher is dangerous, since it ignores the possibility that the current price of the company already reflects the quality of the management and the firm. If the current price is right (and the market is paying a premium for quality), the biggest danger is that the firm loses its luster over time and that the premium paid will dissipate. If the market is exaggerating the value of the firm, this strategy can lead to poor returns even if the firm delivers growth. It is only when markets underestimate the value of firm quality that this strategy stands a chance of making excess returns.

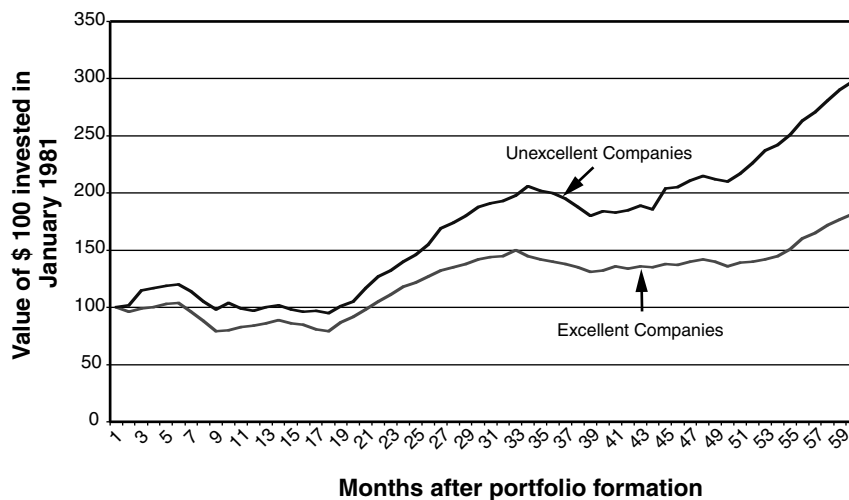
There is some evidence that well managed companies do not always make good investments. Tom Peters, in his widely read book on excellent companies a few years ago, outlined some of the qualities that he felt separated excellent companies from the rest of the market. Without contesting his standards, a study went through the perverse exercise of finding companies that failed on each of the criteria for excellence—a group of unexcellent

TABLE 8.5 Excellent Versus Unexcellent Companies—Financial Comparison

	Excellent Companies	Unexcellent Companies
Growth in assets	10.74%	4.77%
Growth in equity	9.37%	3.91%
Return on capital	10.65%	1.68%
Return on equity	12.92%	-15.96%
Net margin	6.40%	1.35%

companies and contrasting them with a group of excellent companies. Table 8.5 provides summary statistics for both groups.¹¹

The excellent companies clearly are in much better financial shape and are more profitable than the unexcellent companies (to coin an awkward phrase), but are they better investments? Figure 8.7 contrasts the returns that would have been made on these companies versus the excellent ones.

**FIGURE 8.7** Excellent versus unexcellent companies.

(Source: Clayman)

¹¹ See "Excellence Revisited" by Michelle Clayman, *Financial Analysts Journal*, May/June 1994, p. 61–66.

The excellent companies might be in better shape financially but the unexcellent companies would have been much better investments at least over the time period considered (1981–1985). An investment of \$100 in unexcellent companies in 1981 would have grown to \$298 by 1986, whereas \$100 invested in excellent companies would have grown to only \$182. While this study did not control for risk, it does present some evidence that good companies are not necessarily good investments, whereas bad companies can sometimes be excellent investments.

The second study used a more conventional measure of company quality. Standard and Poor's, the ratings agency, assigns quality ratings to stocks that resemble its bond ratings. Thus, an A rated stock, according to S&P, is a higher quality investment than a B+ rated stock, and the ratings are based upon financial measures (such as profitability ratios and financial leverage). Figure 8.8 summarizes the returns earned by stocks in different ratings classes, and as with the previous study, the lowest-rated stocks had the highest returns and the highest-rated stocks had the lowest returns.

Again, the study is not definitive because it might well reflect the differences in risk across these companies, but it indicates that investors who bought the highest ranked stocks, expecting to earn higher returns, would have been sorely disappointed.

One version, perhaps an extreme one, of contrarian investing is vulture investing. In vulture investing, you buy the equity and bonds of companies that are in bankruptcy and bet either on a restructuring or a recovery. This

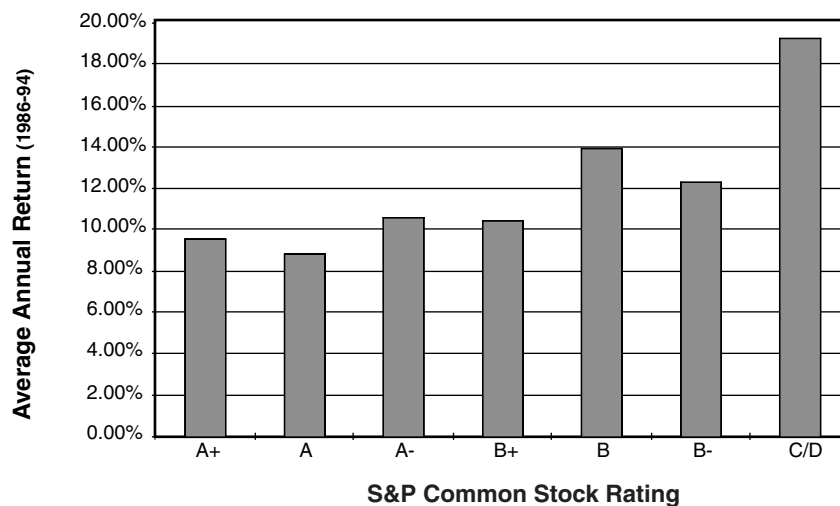


FIGURE 8.8 S & P ratings and stock returns.

method is a high-risk strategy where you hope that a few big winners offset the many losers in your portfolio.

Caveats As with the previous strategy of buying losers, a strategy of buying companies that rank low on financial criteria is likely to require a long time horizon and expose you to more risk, both from financial default and volatility. In addition, the following factors should be kept in mind while putting together a portfolio of “bad” companies.

The first is that not all companies that are poor performers are badly managed. Many are in sectors that are in long-term decline and have no turn-around in sight. It is entirely possible that these companies will continue to be poor performers in the future. Your odds of success are usually higher if you buy a poorly performing company in a sector where other companies are performing well. In other words, you are more likely to get the upside if there is potential for improvement.

Even if companies have potential for improvement in their sectors, part of the reason for the poor performance of the companies may be poor management. If the management of the company is entrenched, either because the managers hold a significant portion of the equity—at least the voting shares—or because of anti-takeover amendments in place, there may be little chance of improved performance in the future. You might have a better chance of succeeding at your portfolio, if you direct your investments to poorly managed firms, where there is a high (or at least reasonable) chance of removing incumbent management. You would, for instance, avoid poorly managed companies with unequal voting rights (voting and non-voting shares), substantial holdings by incumbent managers or anti-takeover amendments in place.

Finally, risk averse investors who wait for the absolute bottom before they will invest often fail at this strategy because timing it is just about impossible. You will have to accept the fact that bad companies will sometimes (or often) become worse before they become better and that this situation might create some short term damage to your portfolio.

Determinants of Success

The caveats presented in the previous section suggest that success from buying losers or bad companies is not guaranteed and may prove illusive. In particular, you need the following:

- (a) *Long-time horizon*: To succeed by buying these companies, you need to have the capacity to hold the stocks for several years. This capacity is necessary not only because these stocks require long time

periods to recover, but also to allow you to spread the high transactions costs associated with these strategies over more time. Note that having a long time horizon as a portfolio manager might not suffice if your clients can put pressure on you to liquidate holdings at earlier points. Consequently, you either need clients who think like you do or clients that have made enough money with you in the past that their greed overwhelms any trepidation they might have in your portfolio.

- (b) *Diversification*: Because poor stock price performance is often precipitated or accompanied by operating and financial problems, it is very likely that quite a few of the companies in the loser portfolio will cease to exist. If you are not diversified, your overall returns will be extremely volatile as a result of a few stocks that lose all their value. Consequently, you will need to spread your bets across a large number of stocks in a large number of sectors. One variation that may accomplish this is to buy the worst performing stock in each sector, rather than the worst performing stocks in the entire market.
- (c) *Personal qualities*: This strategy is not for investors who are easily swayed or stressed by bad news about their investments or by the views of others (analysts, market watchers and friends). Almost by definition, you will read little that is good about the firms in your portfolio. Instead, there will be bad news about potential default, management turmoil and failed strategies at the companies you own. In fact, there might be long periods after you buy the stock, where the price continues to go down further, as other investors give up on its future. Many investors who embark on this strategy find themselves bailing out of their investments early, unable to hold on to these stocks in the face of the drumbeat of negative information. In other words, you need both the self-confidence to stand your ground as others bail out and a stomach for short-term volatility (especially the downside variety) to succeed with this strategy.

ACTIVIST VALUE INVESTING

One of the more frustrating aspects of passive contrarian investing is that you, as an investor, do not control your destiny. Thus, you could invest in a poorly managed company, expecting management to change, but it might never happen, leaving you with an investment that wilts over time. In activist value investing, you acquire a large stake in an undervalued or poorly managed company, and then use your position as a large stockholder to push for changes that will release this value. In other words, you act as the catalyst for change, and enrich yourself in the process.

Strategies and Evidence

The strategies used by you as an activist value investor will be diverse, and will reflect why the firm is undervalued in the first place. With a conglomerate or multi-business firm that sells for less than the sum of its parts, you may push for divestitures or spin offs of the parts. When investing in a firm that is being far too conservative in its use of debt, you may push for a recapitalization (where the firm borrows money and buys back stock). Investing in a firm that could be worth more to another firm because of synergy, you may push for it to become the target of an acquisition. When a company's value is weighted down because it is perceived as having too much cash, you may demand higher dividends or stock buybacks. In each of these scenarios, you will have to confront incumbent managers who are reluctant to make these changes. In fact, if your concerns are broadly about management competence, you might even push for a change in the top management of the firm.

Breaking up Is Hard to Do There are cases where large firms that operate in multiple businesses are penalized by the market, either because they are too complex to value or because of a perceived lack of efficiency that comes from being unfocused. In these cases, you could argue that pushing the firm to break up might create value for the component parts. In this section, we will first consider the overall evidence on how the market values multi-business firms, and then consider ways in which you might be able to release value at these firms.

The Conglomerate Discount For the past few decades, strategists have gone back and forth on whether becoming a conglomerate creates or destroys value. In the 1960s and through much of the 1970s, the view was that conglomerates created value, relative to their individual pieces, because you could pool the strengths of the pieces to create a more powerful firm. A hidden subtext to many of these arguments was the premise that conglomerates were somehow less risky and more valuable than their individual components because they were able to diversify away risk. Financial theorists pointed out the fallacy in this argument by noting that individual investors could have accomplished the same diversification at far lower cost. Later, the argument shifted to one of superior management transferring its skills to poorly managed firms in different businesses, and creating often unnamed synergies.

Empiricists have approached this question from a different perspective. They have looked at the question of whether conglomerates trade at a premium or discount to their parts. To make this judgment, they value the pieces of a conglomerate, using the typical multiple at which independent firms in the business trade. Thus, you could break GE down into nine parts, and value each part based upon the enterprise value to EBITDA or PE ratio at which

other firms in each business trade. You can then add up the values of the parts and compare it to the value of the conglomerate. In this comparison, the evidence¹² seems to indicate that conglomerates trade at significant discounts (ranging from 5–10 percent, depending upon the study) to their piecewise values. While one can contest the magnitude of these discounts on estimation grounds—it is difficult to estimate the true earnings of GE Capital, given allocations and other pooled costs—it is clear that some multi-business firms would be worth more as individual businesses.

So what can an activist investor who buys stock in such a company do to claim this surplus value? The most drastic step, in terms of separation from the parent company and existing management, is a divestiture of the individual pieces. There are less drastic alternatives as well, such as spinoffs and split-offs of independent businesses, that might accomplish the separation while preserving some of the benefits generated by having a linkage.

Divestitures In a divestiture, a firm sells assets or a division to the highest bidder. On the sale, it receives cash that is either reinvested in new assets or returned to stockholders as dividends or stock buybacks. It is the most drastic of the actions described in this section, since the divested assets will belong to a new buyer and any connections with the parent company will be severed.

Process and Effect on Value A divestiture can be initiated either by the divesting firm or by an interested buyer. In the first case, the divesting firm will offer assets for sale and invite potential bids. If the assets have substantial value, it will use the services of an investment banker in seeking out bidders. In the second case, the process starts with an interested buyer approaching the firm and offering to buy a division or assets. While this buyer cannot force the divestiture, it can elicit interest if it offers a high enough price. The final price will then be determined by negotiations between the two sides.

How does a divestiture affect a firm's value? To answer, you would need to compare the price received on the divestiture to the present value of the expected cash flows that the firm would have received from the divested assets. There are three possible scenarios:

1. If the proceeds from the divestiture are equal to the present value of the expected cash flows, the divestiture will have no effect on the divesting firm's value.

¹² See Berger and Ofek, 1995, "Diversification's Effect on Firm Value" and Lang & Stulz, 1994, Tobin's Q, Corporate Diversification and Firm Performance.

2. If the proceeds from the divestiture are greater than the present value of the expected cash flows, the value of the divesting firm will increase on the divestiture.
3. If the proceeds from the divestiture are less than the present value of the expected cash flows, the value of the firm will decrease on the divestiture.

The divesting firm receives cash in return for the assets and can choose to retain the cash and invest it in marketable securities, invest the cash in other assets or new investments, or return the cash to stockholders in the form of dividends or stock buybacks. This action, in turn, can have a secondary effect on value.

Reasons for Divestitures Why would a firm sell assets or a division? There are at least three reasons. The first is that the divested assets may have a higher value to the buyer of these assets. For assets to have a higher value, they have to either generate higher cash flows for the buyers or result in lower risk (leading to a lower discount rate). The higher cash flows can occur because the buyer is more efficient at utilizing the assets, or because the buyer finds synergies with its existing businesses. The lower discount rate might reflect the fact that the owners of the buying firm are more diversified than the owners of the firm selling the assets. In either case, both sides can gain from the divestiture and share in the increased value.

The second reason for divestitures is less value-driven and more a result of the immediate cash flow needs of the divesting firm. Firms that find themselves unable to meet their current operating or financial expenses might have to sell assets to raise cash. For instance, many leveraged acquisitions in the 1980s were followed by divestitures of assets. The cash generated from these divestitures was used to retire and service debt.

The third reason for divestitures relates to the assets not sold by the firm, rather than the divested assets. In some cases, a firm might find the cash flows and values of its core businesses affected by the fact that it has diversified into unrelated businesses. This lack of focus can be remedied by selling assets or businesses that are peripheral to the main business of a firm.

Market Reaction to Divestitures A number of empirical questions are worth asking about divestitures. What types of firms are most likely to divest assets? What happens to the stock price when assets are divested? What effect do divestitures have on the operating performance of the divesting firm? Let us look at the evidence on each of these questions.

There are three scenarios in which firms divest assets. In the first, the firms are forced by the government to divest because of antitrust laws. The second occurs when financially distressed firms need the cash to meet their financial

obligations. In the third scenario, divestitures are part of a major restructuring effort, designed to return a firm to its core businesses. In some cases this process is initiated by the existing management, and in some cases by an acquirer. One study¹³ looked at firms that were targets of hostile acquisitions, and noted that there were substantial asset divestitures in 60 percent of them; more than half the assets of the firms were divested in these cases. The divestitures were of units that were distinct from the rest of the firm's business and often had been acquired as part of an earlier diversification effort.

In a study in 1984, Linn and Rozeff examined the price reaction to announcements of divestitures by firms and reported an average excess return of 1.45 percent for 77 divestitures between 1977 and 1982. They also noted an interesting contrast between firms that announce the sale price and motive for the divestiture at the time of the divestiture, and those that do not: in general, markets react much more positively to the first group than to the second, as shown in Table 8.6.

It appears that financial markets view firms that are evasive about the reasons for and the proceeds from divestitures with skepticism. This finding was confirmed by Klein in 1996, who noted that the excess returns are positive only for those divestitures where the price is announced at the same time as the divestiture. She extended the study and concluded that the magnitude of the excess return is a function of the size of the divestiture. For example, when the divestiture is less than 10 percent of the equity of the firm, there is no significant price effect, whereas if it exceeds 50 percent, the stock price increases by more than 8 percent.

Studies that have looked at the performance of parent firms after divestitures report improvements in a number of operating measures: operating margins and returns on capital increase, and stock prices tend to outperform the rest of the sector. In summary, firms that have lost focus often are more likely to divest; markets react positively to these divestitures if

TABLE 8.6 Stock Price Reaction to Divestiture Announcements

Price Announced	Motive Announced	
	Yes	No
Yes	3.92%	2.30%
No	0.70%	0.37%

(Source: Linn & Rozeff (1984))

¹³ See Bhide, 1989.

information is provided at the time of the divestiture and operating performance tends to improve after divestitures.

Spinoffs, Split-Offs, and Split-Ups In a spinoff, a firm separates out assets or a division and creates new shares with claims on this portion of the business. Existing stockholders in the firm receive these shares in proportion to their original holdings. They can choose to retain these shares or sell them in the market. In a split-up, which can be considered an expanded version of a spin off, the firm splits into different business lines, distributes shares in these business lines to the original stockholders in proportion to their original ownership in the firm, and then ceases to exist. A split-off is similar to a spin off, insofar as it creates new shares in the undervalued business line. In this case, however, the existing stockholders are given the option to exchange their parent company stock for these new shares, which changes the proportional ownership in the new structure.

Process and Follow-up Spinoffs, split-offs, and split-ups require far more procedural steps than a typical divestiture. Miles and Woolridge (1999) lay out the following steps in a typical spinoff; they are similar for a split-off or split-up.

The process begins when the firm announces its intention to spin off a subsidiary or division. The market reaction to a spinoff usually occurs on this announcement. Once the announcement has been made, the firm approaches the Internal Revenue Service or obtains a professional tax opinion on the tax status of the spinoff. While the tax code in the United States treats a spin off as a dividend, the spinoff is tax exempt if the firm fulfils the following requirements:

1. Both the parent and the subsidiary have been in active operations for at least five years prior to the spinoff distribution date.
2. The parent company had control of the subsidiary before the spinoff and gives up this control after the spinoff. In general, the spun off shares have to represent at least 80 percent of the outstanding value of the unit, and the parent company must not be able to maintain effective control with the remaining shares. In other words, the subsidiary has to become independent of the parent company.
3. There must be a business reason for the spinoff, and the objective cannot be purely distribution of profits. Legitimate business reasons are usually broadly defined to include giving managers a stake in ownership of the unit, complying with antitrust laws and enhancing access to capital markets.

After obtaining a legal opinion, the firm will have to file Form 10 with the SEC. This form, which resembles the prospectus in an initial public offering, contains information about the unit being spun off and supporting financial statements. If the spin off is a large portion of the firm (as a percent of firm value) or if the corporate charter requires it, the firm must obtain stockholder approval for the action.

The firm will then either apply for stock exchange listing of the shares in the spun off unit or arrange for over-the-counter trading. Often, institutional investors will begin trading these units before they are actually issued; such trading is said to occur on a "when issued" basis. Thus, by the time the distribution of shares to existing stockholders occurs, the shares already have been priced in the market. Shareholders are then free to hold on to the shares or sell them in the market. The steps in the process are summarized in Figure 8.9.

Reasons for Spin Offs There are two primary differences between a divestiture and a spin off. The first is that there is often no cash generated for the parent firm in a spin off. The second is that the division being spun off

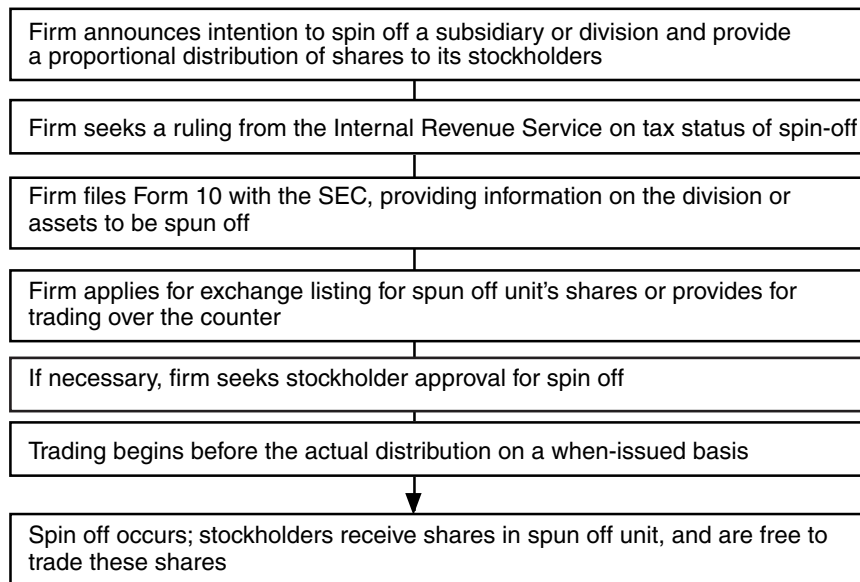


FIGURE 8.9 Steps in a spinoff.

(Source: Miles & Woolridge)

usually becomes an independent entity, often with existing management in place. As a consequence, the first two reasons given for divestitures—a buyer who generates higher value from the assets than the divesting firm and the need to meet cash flow requirements—do not apply to spinoffs. Improving the focus of the firm and returning to core businesses, which we offered as reasons for divestitures, can be arguments for spinoffs as well. There are four other reasons:

- A spinoff can be an effective way of creating value when subsidiaries or divisions are less efficient than they could be and the fault lies with the parent company, rather than the subsidiaries. For instance, Miles and Woolridge present the case of Cyprus Minerals, a firm that was a mining subsidiary of Amoco in the early 1980s. Cyprus was never profitable as an Amoco subsidiary. In 1985, it was spun off after losing \$95 million in the prior year. Cyprus cut overhead expenses by 30 percent and became profitable within six months of the spin off. Because the management of Cyprus remained the same after the spinoff, the losses prior to it can be attributed to the failures of Amoco's management. When a firm has multiple divisions, and the sum of the divisional values is less than what the parent company is valued at, we have a strong argument for a split off, with each division becoming an independent unit.
- The second advantage of a spinoff or split-off, relative to a divestiture, is that it might allow the stockholders in the parent firm to save on taxes. If spinoffs and split-offs meet the tax tests described in the last section, they can save stockholders significant amounts in capital gains taxes. In 1992, for instance, Marriott spun off its hotel management business into a separate entity called Marriott International; the parent company retained the real estate assets and changed its name to Host Marriott. The entire transaction was structured to pass the tax test, and stockholders in Marriott were not taxed on any of the profits from the transaction.
- The third reason for a spinoff or split-off occurs when problems faced by one portion of the business affect the earnings and valuation of other parts of the business. As an example, consider the pressure brought to bear on the tobacco firms, such as Philip Morris and RJR Nabisco, to spin off their food businesses because of investor perception that the lawsuits faced by the tobacco businesses weighed down the values of their food businesses as well.
- Finally, spinoffs and split-offs can also create value when a parent company is unable to invest or manage its subsidiary businesses optimally because of regulatory constraints. For instance, AT&T, as a regulated telecommunications firm, found itself constrained in decision making in its research and computer divisions. In 1995, AT&T spun

off both divisions: the research division (Bell Labs) was renamed Lucent Technologies, and its computer division reverted back to its original name of NCR.

Why would a firm use a split up instead of spin off or split off? By giving existing stockholders an option to exchange their parent company stock for stock in the split up unit, the firm can get a higher value for the assets of the unit. This is so because those stockholders who value the unit the most will be most likely to exchange their stock. The approach makes sense when there is wide disagreement between stockholders on how much the unit is worth.

Market Reactions to Spinoffs Two issues have been examined by researchers who have looked at spinoffs. The first relates to the stock price reaction to the announcement of spinoffs. In general, these studies find that the parent company's stock price increases on the announcement of a spin off. A study by Schipper and Smith in 1983 examined 93 firms that announced spinoffs between 1963 and 1981 and reported an average excess return of 2.84 percent in the two days surrounding the announcement. Similar results were reported in Hite and Owens in 1983 and by Miles and Rosenfeld in the same year. Further, there is evidence that the excess returns increase with the magnitude of the spun-off entity. Schipper and Smith also find evidence that the excess returns are greater for firms in which the spinoff is motivated by tax and regulatory concerns.

The second set of studies looks at the performance of both the spun-off units, and the parent companies, after the spinoff. These studies, which are extensively documented in Miles and Woolridge, can be summarized as follows:

1. Cusatis, Miles, and Woolridge report that both the spun-off units and the parent companies report positive excess returns in the three years after the announcement of the spinoffs. Figure 8.10 reports the total returns and the returns adjusted for overall industry returns in the three years after the spinoff. Both groups are much more likely to be acquired, and the acquisition premiums explain the overall positive excess returns.
2. There is a significant improvement in operating performance at the spun-off units in the three years after the spinoff. Figure 8.11 reports on the change in revenues, operating income, total assets, and capital expenditures at the spun-off units in the three years after the spinoff, before and after adjusting for the performance of the sector.

Note that the spun-off units grow faster than their competitors in terms of revenues and operating income; they also reinvest more in capital expenditures than other firms in the industry.

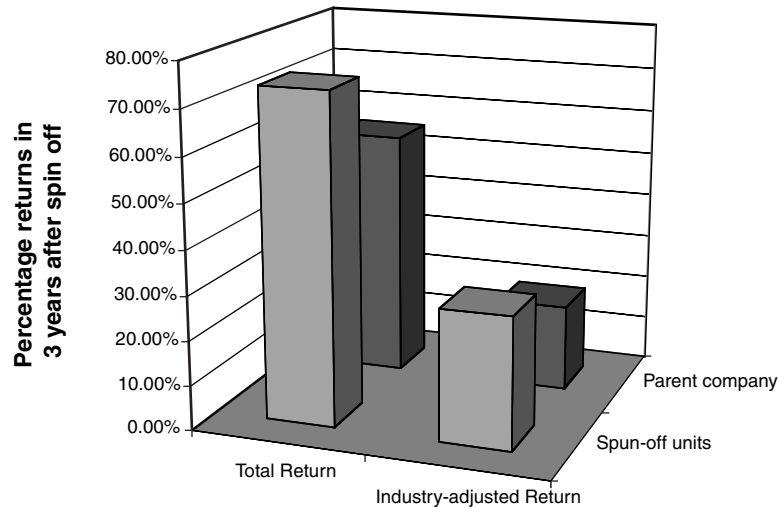


FIGURE 8.10 Returns at spinoffs and parent company.

(Source: Cusatis, Miles, and Woolridge)

You Can Be Too Conservative In corporate finance, there has long been a debate about whether a firm can become more valuable as a result of changing the amount of debt that they carry on their books. There is one school of thought, attributed to Miller and Modigliani, that argues that value is independent of financial leverage, but only in a world without taxes and default risk. Another school of thought argues that in the presence of taxes and default risk, there is an optimal amount of debt that a firm can carry and that value is maximized at that point. Finally, there is a school of thought argues that firms should not use debt because it makes equity more risky and that less debt is always better than more debt. We believe in the optimal debt ratio school and that firms can, in fact, be too conservative in their use of debt.

Are Some Firms Underlevered? What kinds of firms have too little debt or are underlevered? At an intuitive level, you would expect a firm with stable and large cashflows from operations and a high tax rate to gain substantial value from the use of debt. If such a firm chooses not to borrow money or has very little debt on its books, you could argue that it is in fact costing its stockholders.

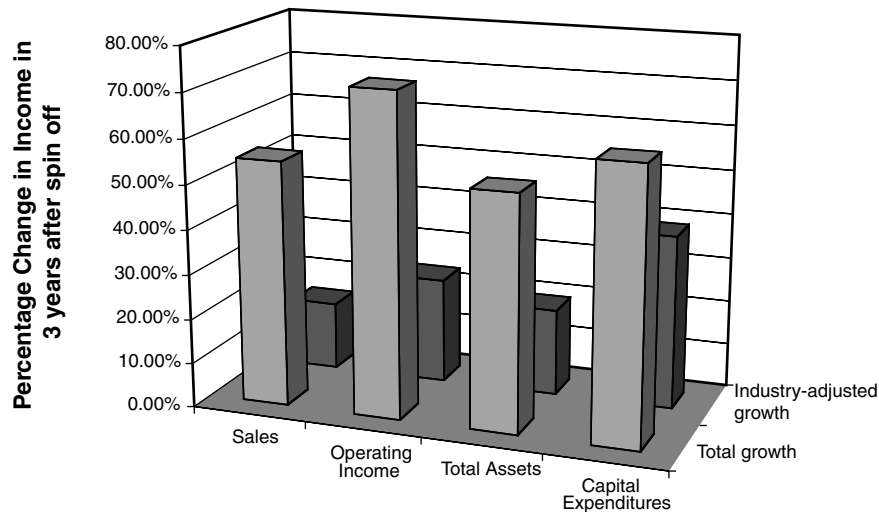


FIGURE 8.11 Operating performance of spun-off units.

(Source: Miles and Woolridge)

Your Firm is Underlevered

There is both anecdotal and empirical evidence that some firms are underlevered and that others are overlevered. You can come to this conclusion by comparing a firm to otherwise similar firms in the same business or by looking at the relationship between debt ratios and variables such as earnings variability and tax rates across the market. In 1984, Bradley, Jarrell, and Kim analyzed whether differences in debt ratios can be explained by some of the variables listed above. They noted that the debt ratio was lower for firms with more volatile operating income. Because these firms are also likely to face much higher likelihood of bankruptcy, this finding is consistent with the proposition that firms with high bankruptcy costs borrow less. They also looked at firms with high advertising and research and development expenses; lenders to these firms are likely to be much more concerned about recouping their debt if the firm gets into trouble, because the assets of these firms are intangible (brand names or patents) and difficult to liquidate. These firms, consistent with the theory, have much lower debt ratios. They also find that there are a significant number of firms whose debt

ratios are much lower and much higher than predicted by the cross-sectional relationship.

So what if you were an activist investor in a firm with excess debt capacity and a conservative management? Left to themselves, the managers will not use the debt capacity. Investors can try to force them to borrow more and increase the proportion of capital that comes from debt—this process is called a recapitalization. At the limit, investors even might use the firm's debt capacity to borrow the money themselves and buy the entire company in a leveraged acquisition or buyout.

Recapitalization In a recapitalization, a firm changes its financial mix of debt and equity, without substantially altering its investments or asset holdings. You can recapitalize in many ways. For instance, you could try to increase your debt ratio by borrowing money and paying a dividend or buying back stock. The first action increases debt and the second reduces equity. Alternatively, you can swap debt for equity, where equity investors in your firm are offered equivalent amounts (in market value terms) in debt. If you want to reduce your debt ratio, you would reverse these actions, raising equity and reducing debt.

The boom in debt for equity recapitalization occurred in the late 1980s. A study that looked at these recapitalizations came to two conclusions. The first was that almost every one of them was triggered by the threat of a hostile takeover. In other words, it is external pressure that forces managers to increase financial leverage. The second was that the average stock price reaction to recapitalizations is very positive. On average, in the sample of 45 recapitalizations studied, the stock price increased by 21.9 percent. This finding is not restricted to just stock buybacks. A study of 52 offers to exchange debt for equity found that stock prices increased by 14 percent.

We might be overreaching when we conclude that this is definitive evidence that these firms were under levered. After all, the stock price reaction to a buyback or exchange offer might be explained by a much simpler story, say dilution—there are fewer shares outstanding after these actions. Notwithstanding this, the evidence seems to indicate that firms that issue debt are often treated favorably by markets.

Leveraged Acquisitions Another phenomenon of the late 1980s was the leveraged buyout. Here, a group of investors raise debt against the assets of a publicly traded firm, preferably one with stable earnings and marketable assets, and use the debt to acquire the outstanding shares in the firm. If they succeed in their endeavor, the firm becomes a private company, and the debt is partly or substantially paid down with the firm's

cash flows or from asset sales over time. Once the firm has been nursed back to health and efficiency, it is taken public again, reaping (at least if all goes according to plan) substantial payoffs to the equity investors in the deal.

Studies of leveraged acquisitions suggest that they do, on average, deliver significant returns to their investors. However, some of the leveraged buyouts done towards the end of the 1980s failed spectacularly, highlighting again that leverage is a double-edged sword—elevating returns in good times and reducing them in bad times.

You Have Lousy Managers Both conglomerate discounts and under leverage are manifestations of a larger problem, which is that managers do not always put stockholder interests first. While you can fashion specific solutions to both of these problems, they might not be sufficient in a firm where the source of the problem is poor management. For such firms, the only long term solution to value generation is a new management team.

Changing Top Management If you are an activist investor in a firm with incompetent management, how would you go about instituting change? Needless to say, you will not have the cooperation of the existing management, who you have labeled as not up to the job. If you are able to harness enough stockholders to your cause, though, you might be able to increase the pressure on the top management to step down. While some might view the loss of top management in a company to be bad news, it really depends upon the market's perception of the management. The overall empirical evidence suggests that changes in management are generally viewed as good news. In Figure 8.12, for instance, we examine how stocks react when a firm's CEO is replaced.

The price goes up, on average, when top management is changed. However, the impact of management changes is greatest when the change is forced. Management is more likely to be forced out in the aftermath of negative returns, and stock prices increase after the change is announced.

Hostile Acquisitions If you cannot get top management to leave the firm, you can actively seek out hostile acquirers for the firm. If others share your jaundiced view of the management of the firm, you may very well succeed. There is evidence that indicates that badly managed firms are much more likely to be targets of acquisitions than well managed firms. Figure 8.13 summarizes key differences between target firms in friendly and hostile takeovers.

Note that target firms in hostile takeovers generally have much lower returns on equity (relative to their peer group), have done worse for their

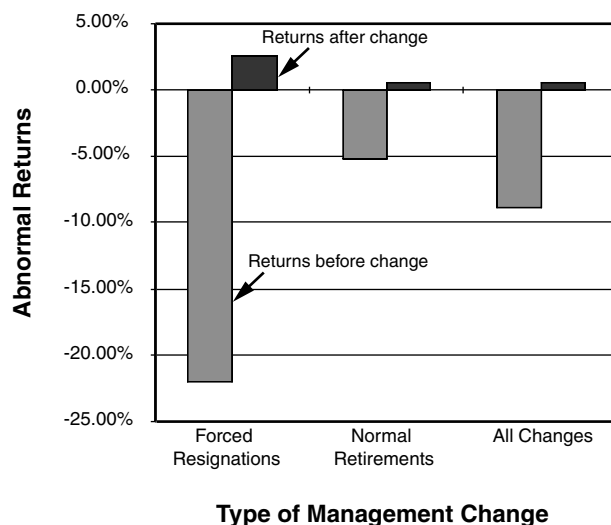


FIGURE 8.12 Returns around management changes.

stockholders and have fewer insider holdings than target firms in friendly takeovers. Needless to say, the payoff to the stockholder of a firm that is the target of a hostile takeover is huge.

Empirical Evidence on Activist Investing

The overall evidence on whether activist investing works is mixed. While there are individual activist investors who have earned high returns by getting corporate managers to bend to their wishes, studies indicate that managers are both stubborn and resilient.

For instance, studies¹⁴ that have examined proxy fights find that there is little or no stock price reaction to proxy proposals by activist investors. This suggests that markets are not optimistic about changes occurring as a result of these proposals. However, a study by Wahal indicates that the price reaction to proxy fights is more positive when you look at only the sub-sample of companies that were targeted for poor stock price performance.

¹⁴ See Karpoff, Malatesva & Walkling (1996).

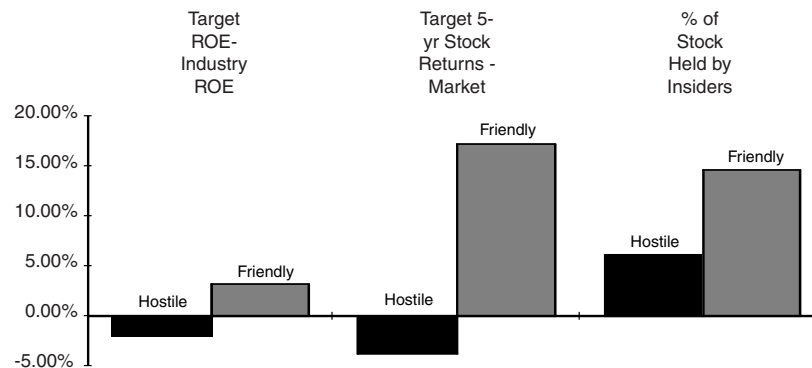


FIGURE 8.13 Target characteristics—hostile versus friendly takeovers.

(Source: Bhide)

A study by Caton, Goh, and Donaldson looked at companies on the Focus List—a list of poorly performing companies targeted by the Council of Institutional Investors. On average, these companies report higher earnings and stock returns after they are put off the list. However, when the sample of 138 companies were broken up into companies that traded at a market value less than replacement cost (Tobin's $Q < 1$) and at a market value greater than the replacement cost (Tobin's $Q > 1$), the improvement in earnings and stock prices was only in the latter group. Summarizing the evidence, we would suggest that shareholder activism has a chance of succeeding at firms whose stock prices have done badly and where there is potential for improved performance. It is unlikely to yield results when it is focused on firms with positive stock price performance or where management is not at fault for poor performance.

Determinants of Success

Activist value investors have an advantage over passive value investors since they can provide the catalysts for value creation. So, what is it that stops all of us from being activist value investors? When we consider some of the pre-requisites for being a successful value investor, we can also see why there are so few successful ones:

- This power of activist value investing usually comes from having the capital to buy significant stakes in poorly managed firms and using these large stockholder positions to induce management to change their behavior. Managers are unlikely to listen to small stockholders, no matter how persuasive their cases might be.

- In addition to capital, though, activist value investors need to be willing to spend substantial time fighting to make themselves heard and in pushing for change. This investment in time and resources implies that an activist value investor has to pick relatively few fights and be willing to invest substantially in each one.
- Activist value investing, by its very nature, requires a thorough understanding of target firms, since you have to know where each of these firms is failing and how you would fix these problems. Not surprisingly, activist value investors tend to choose a sector that they understand well and take positions in firms within that sector. It is clearly not a strategy that will lead to a well diversified portfolio.
- Finally, activist value investing is not for the faint hearted. Incumbent managers are unlikely to roll over and give in to your demands, no matter how reasonable you may think them to be. They will fight, and sometimes fight dirty, to win. You have to be prepared to counter and be the target for abuse. At the same time, you have to be adept at forming coalitions with other investors in the firm since you will need their help to get managers to do your bidding.

If you consider all these requirements for success, it should come as no surprise that most conventional mutual funds steer away from activist value investing. Although they might have the capital to be activist investors, they do not have the stomach or the will to go up against incumbent managers. The most successful activist value investors have either been individuals, like Michael Price, or small focused mutual funds, like the Lens Fund. As a small individual investor, you can try to ride their coattails, and hope that they succeed, but it is unlikely that you could succeed at activist value investing.

CONCLUSION

Value investing comes in many stripes. First, there are the screeners, who we view as the direct descendants of the Ben Graham school of investing. They look for stocks that trade at low multiples of earnings, book value or revenues, and argue that these stocks can earn excess returns over long periods. It is not clear whether these excess returns are truly abnormal returns, rewards for having a long time horizon or just the appropriate

MICHAEL PRICE: ACTIVIST INVESTING

In the 1990s, Michael Price acquired a reputation for buying stock in what were perceived as poorly managed companies and pushing for change. In the process, he enriched shareholders at Mutual Shares, the fund that he ran. One example was his investment in Chase Manhattan in the mid-90s, where after he acquired the shares, he pushed the firm to merge with Chemical. He argued that the latter's management would shake up the moribund culture at Chase and make it a more profitable firm. While Chase's management initially fought the merger, they ultimately succumbed to his pressure and the subsequent merger generated substantial returns for Mutual Shares.

Price served his apprenticeship with Max Heine, a German Jew who fled Austria and became a contrarian value investor and co-manager of Mutual Shares. Heine looked for cheap assets that were out of favor. He bought railroad bonds for cents on the dollar in the 1970s and made his money back several times over. As Price paraphrases it, Heine taught him to "stay away from the crowd and buy things at a big discount." Like Heine, Price prefers less visible stocks that are underpriced, though unlike Heine, he has been willing to take large positions in high profile firms like Dow Jones and Sunbeam and push for change. Price also does not have much faith in equity research, which he believes is designed to enrich Wall Street and not investors.

rewards for risk that we have not adequately measured. Second, there are contrarian value investors, who take positions in companies that have done badly in terms of stock prices and/or have acquired reputations as poorly managed or run companies. They are playing the expectations game, arguing that it is far easier for firms such as these to beat market expectations than firms that are viewed as successful firms. Finally, there are activist investors who take positions in undervalued and/or badly managed companies and by virtue of their holdings are able to force changes in corporate policy or management that unlock this value.

What, if anything, ties all of these different strands of value investing together? In all of its forms, the common theme of value investing is that firms that are out of favor with the market, either because of their own performance or because the sector that they are in is in trouble, can be good investments.

LESSONS FOR INVESTORS

To be a value investor, you should have:

- *A long-time horizon:* While the empirical evidence is strongly supportive of the long-term success of value investing, the key word is long term. If you have a time horizon that is less than two or three years, you might never see the promised rewards to value investing.
- *Be willing to bear risk:* Contrary to popular opinion, value investing strategies can entail a great deal of risk. Firms that look cheap on a price to earnings or price to book basis can be exposed to both earnings volatility and default risk.

In addition to these, to be a contrarian value investor, you need:

- *A tolerance for bad news:* As a contrarian investor who buys stocks that are down and out, you should be ready for more bad news to come out about these stocks. In other words, things will often get worse before they get better.

In addition to all of the above, to be an activist investor, you have to:

- *Be willing to fight:* Incumbent managers in companies that you are trying to change will seldom give in without a fight.