IN SEARCH OF INVESTMENT EXCELLENCE

DO EXCELLENT COMPANIES MAKE SUCCESSFUL INVESTMENTS?

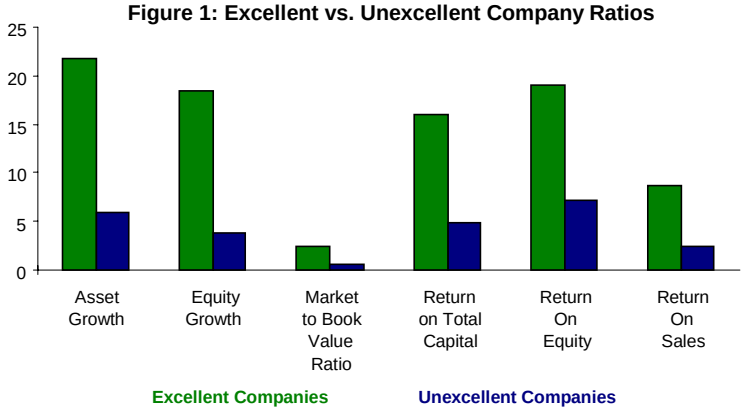
Conventional wisdom holds that a successful stock investment program entails identifying and investing in excellent companies. Over time, the investor expects to share in their success, reaping benefits such as increases in stock value and higher dividend payments. Whether the investor purchases stock directly or through a mutual fund, having an ownership interest in excellent companies is presumed to lead to superior investment results.

In 1982, Tom Peters and Robert Waterman published a best-selling study of major American companies, In Search of Excellence.[1] Among the criteria that the authors used to identify excellent companies was a series of six financial ratios (measured over the period 1961 through 1980). These measures of financial superiority include:

- Compound growth of assets;
- Compound growth of equity;
- Average ratio of market value to book value;
- Average return on total invested capital (net income divided by total invested capital);
- Average return on equity; and
- Average return on sales.

In a 1987 study, Michelle Clayman took In Search of Excellence as a point of departure. She hypothesized that an investor might be able to realize superior returns by holding a portfolio of companies that have demonstrated financial excellence. She tested the hypothesis by screening the S&P 500 in order to discover the group of companies with the best overall accounting ratios. She also screened the S&P 500 to form a group of "unexcellent" companies as a control group. Accounting ratios for the excellent and unexcellent companies for the period prior to the formation of the portfolios are illustrated in Figure I.

Figure 1: Excellent vs. Unexcellent Company Ratios



Clayman tracked results from equally weighted portfolios of excellent and unexcellent companies from 1981 through 1985. As anticipated, the excellent company portfolio outperformed the S&P 500 index, but by just 1.1% per year over the period. The portfolio of unexcellent companies, however, outperformed the S&P 500 by 12.4% per year.[2] It appeared that Clayman had discovered a paradox: stocks of companies with poor financial ratios might be superior investments.

Other Studies Reach Similar Conclusions

These counterintuitive results generated an uproar in the investment community. Many observers argued that Clayman's findings represented a statistical anomaly attributable to the brief five-year period reviewed. Other researchers attempted to determine whether the phenomenon held over other time periods and in other capital markets.

Eugene Fama and Kenneth French (professors of economics at the University of Chicago) reviewed U.S. stock returns for a much longer period, covering July 1963 through December 1990.[3] Fama and French concluded that, on average, investment returns from unexcellent companies were superior to returns from excellent companies for both large and small company stocks. Capaul, Rowley and Sharpe studied the stock markets of major Asian and European nations over the period January 1981 through June 1992.[4] Their results demonstrated that the relative superiority of unexcellent firms' investment returns was a worldwide phenomenon.

William Sharpe called stocks of unexcellent companies 'Value Stocks,' and those of excellent companies 'Growth Stocks'. These are now the most common terms for the two investment styles:

> *One school of thought holds that the securities of companies with substantial growth prospects will provide high returns to investors over the long run. Another holds that the best investment strategy involves selecting companies whose securities can be purchased for prices that are low relative to the companies' estimated underlying values.*[5]

Figure 2 (following page) compares both large and small company Growth and Value Stock indexes (maintained by the Center for Research in Securities Prices at Yale University). The graph reveals that the magnitude of the return advantage of value stocks is significant over time. The graph also

"...companies experiencing earnings distress have higher average stock returns than companies with good earnings prospects, suggesting that the market demands compensation for this risk factor..."

indicates that, for small company stocks, the differential between growth and value is even more pronounced.

Consistency and Persistence of the Value Effect

The empirical evidence contradicts conventional wisdom. Investing in demonstrably unexcellent companies tends to generate superior returns. Financial economists argue that these counterintuitive results are both rational and necessary. Less successful companies ***must*** generate superior returns; if they did not, no one would invest in them. These superior returns are one element of such companies' cost of capital :

> *...companies experiencing earnings distress have higher average stock returns than companies with good earnings prospects, suggesting that the market demands compensation for this risk factor....companies with poor earnings prospects pay higher costs of capital than companies with good earnings prospects. When they borrow money at a bank, they pay higher interest rates. When they issue stock, they receive less money. Since they receive less money from a stock issue, their expected returns are higher.... The fastest-growing stock returns are likely to come from investing in slow-growing companies.*[6]

While academic research appears to demonstrate the persistence of the value effect over time, year-by-year results vary. U.S. value stocks outperformed U.S. growth stocks by an average of 4.71% per year from 1964 through 1997. Nevertheless, in 39% of those years, growth stocks generated a higher rate of return than value stocks. In some years, growth stocks' advantage was as much as 19% (see Figure 3). In recent years, growth outperformed value in 1994, 1995 and 1996. Furthermore, in certain market sectors, such as U.S. large cap stocks, growth's advantage has persisted for as long a period as 10 years (see the period beginning in January, 1987 in Table I, page 3).

Still, in 24 of the 25 rolling ten year periods between 1964 and 1997, the large value index outperformed the large growth index, and in all 25 rolling ten year periods between 1964 and 1997, the small value index outperformed the small growth index.

The Risk/Return Paradox

Perhaps the most surprising fact about value investing is that several studies have found that large company value stocks involve less risk than growth stocks.[7] This observation appears to contradict capital market theory that higher return investments necessarily involve higher risk.

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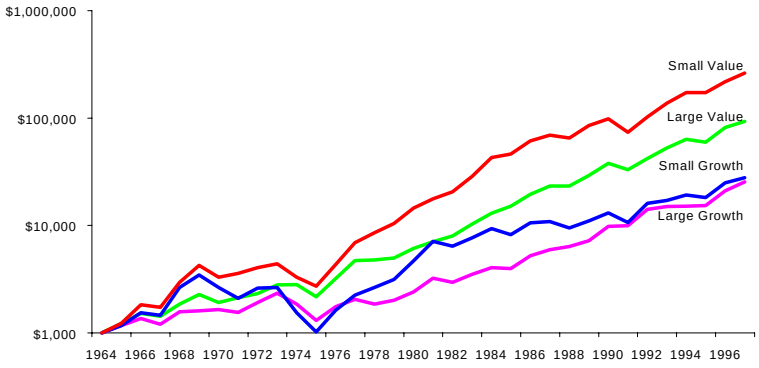
Scott Lummer of Ibbotson Associates reports, for example, that during the period 1978 through 1994 the return on the Value Stock component of the Wilshire 5000 Index yielded a return of 15.6% per year with a standard deviation of 15.7%. By contrast, the return on the Growth Stock component of the Wilshire 5000 index yielded a return of 14.3% with a standard deviation of 20.1% (the higher the standard deviation the more variable or risky the investment).

The academic community is split among several competing explanations of the value effect. The Fama and French camp offer a "cost-of capital" explanation to account for the historical superiority of value-style investing. This group staunchly adheres to the "efficient market" school of capital market theory. Their challenge is to explain how, in an efficient market, investments that appear less risky, nonetheless outperform more risky securities.

Figure 2: Value vs. Growth
Appreciation of $1,000 Invested from 1964 - 1997



"...without some theory upon which a model can be constructed, regression results of this type are suspect...What is desperately needed is some theory that would explain what the ingredients are that would determine an asset's future return."

Figure 3: Annual Value Premium, 1964 - 1997

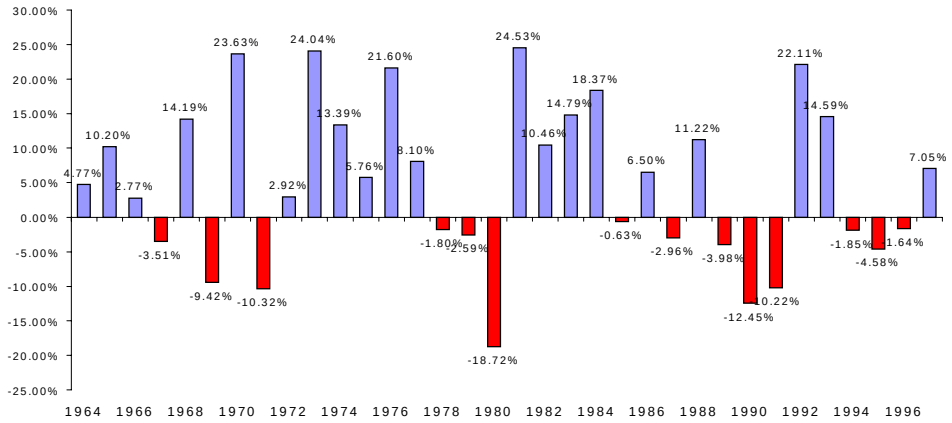


Table I: Returns for Rolling 10 Year Periods from 1/1/64 through 12/31/97

Ten Year Period Beginning:	Large Cap Growth Index	Large Cap Value Index	Small Cap Growth Index	Small Cap Value Index
1/64	6.4	10.1	4.4	11.4
1/65	1.1	5.1	-1.3	7.1
1/66	2.6	7.4	0.5	7.4
1/67	5.5	12.0	4.4	12.7
1/68	1.7	9.4	0.0	8.7
1/69	2.2	7.9	-1.0	7.0
1/70	3.8	12.1	5.9	13.7
1/71	7.7	12.6	13.0	16.6
1/72	4.5	12.8	9.4	16.2
1/73	4.1	13.8	11.3	19.2
1/74	8.1	16.9	19.7	27.4
1/75	11.7	21.5	23.2	30.6
1/76	11.6	19.5	20.5	27.4
1/77	11.2	17.3	17.1	30.6
1/78	13.1	17.5	13.6	28.8
1/79	13.6	19.4	13.4	25.4
1/80	15.1	19.8	10.9	22.1
1/81	11.9	16.2	6.1	15.3
1/82	16.9	18.0	9.7	18.0
1/83	15.7	17.4	8.3	17.3
1/84	14.1	16.8	7.4	15.7
1/85	14.5	14.8	8.2	15.3
1/86	15.0	15.5	9.0	14.8
1/87	15.7	14.9	9.9	14.3
1/88	18.1	18.1	13.2	18.5

Others argue that the results of value investing prove market inefficiency. Robert Haugen, for one, argues that the market is irrational, with the result that investors pay too much for growth stocks, and too little for value:

Overwhelming evidence is piling up that investors overreact to the past performance of firms, pricing growth stocks—stocks which are expected to grow faster than average—too high and value stocks—stocks which are expected to grow slower than average—too low.[8]

Despite their conflicting opinions about the efficient market hypothesis, both Haugen and Fama/French agree that value stocks are expected to outperform growth stocks over the long term.

Fischer Black takes a third position. Black notes that the Fama/French research stands the classical scientific method on its head. Rather than forming a hypothesis and then testing with data, they consider the data first and then attempt to formulate an explanatory hypothesis. Although Black accepts the finding that value stocks have generated abnormally high returns, he argues that there is no reason that they will do so in the future:

...without some theory upon which a model can be constructed, regression results of this type are suspect...What is desperately needed is some theory that would explain what the ingredients are that would determine an asset's future return.[9]

Incorporating Value In A Portfolio

Given the studies we have discussed, a case can be made for including value stocks in an investment portfolio. Whether you accept Haugen's explanation that markets tend to over react to bad news, or prefer Black's skepticism, history indicates that value stocks have demonstrated significant and persistent return

Deciding how much of a portfolio to commit to value or growth represents one of the most significant factors in portfolio design. Capitalizing on the value premium has been an effective tool for building wealth. Investors should be aware, however, that the value effect may take years to manifest.

advantages in both domestic and international equity markets, and in both large and small market sectors. However, in any single year, growth stocks may outperform value stocks. Hence it may also be reasonable to include growth stocks in a portfolio. Deciding how much of a portfolio to commit to value or growth represents one of the most significant factors in portfolio design. Capitalizing on the value premium has been an effective tool for building wealth. Investors should be aware, however, that the value effect may take years to manifest.

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[1] Peters, Thomas J. & Waterman, Robert H., In Search of Excellence: Lessons from America's Best-Run Corporations, 1982.

[2] Clayman, Michelle, "In Search of Excellence: The Investor's Viewpoint," Financial Analysts Journal (May-June, 1987).

[3] Fama, Eugene F., & French, Kenneth R., "The Cross-Section of Expected Stock Returns," Journal of Finance (June, 1992).

[4] Capaul. C., Rowley, I, & Sharpe, W. F., "International Value and Growth Stock Returns," Financial Analysts Journal (January/ February, 1993), pp. 27-36.

[5] Ibid., p.27.

[6] Booth, David B., "Growth Stocks: Earnings Growth vs. Stock Returns," (May, 1994) Dimensional Fund Advisors, Inc.

[7] Haugen, Robert A., The New Finance: The Case Against Efficient Markets, 1995

[8] For example, see Lummer, Scott L., "U.S. Equity Indexes as Benchmarks," AIMR Performance Evaluation, Benchmarks, and Attribution Analysis, (November, 1994)

[9] Black, Fischer, "Estimating Expected Return," CFA Level II Equity Analysis (1996), Argentum, Inc.

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