Are High-Quality Firms Also High-Quality Investments?

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The relationship between corporate reputation and investment results is the subject of ongoing debate. Some argue that high-quality firms ultimately provide superior stock price performance; others counter that stock prices already reflect these firms' prospects for growth and profitability. This study advances the debate by providing fresh evidence that investing in high-quality firms yields above-average returns and that these superior returns continue for up to five years.

Individuals and institutions investing in the stock market often prefer to buy shares of high-quality, or "blue-chip," companies. Indeed, some asset managers advocate a policy of investing exclusively in stocks of leading firms. Such strategies raise an interesting question: Does investing in well-regarded companies earn abnormally high returns—that is, returns that outperform the market?

Judging from the mixed opinions encountered, the answer is not obvious. Investors who favor the "glamour" stocks of well-managed companies argue that these firms experience superior growth and profitability, which ultimately translate into superior stock price performance. Yet many academics question this claim. They point to decades of research supporting the argument that the stock market values shares efficiently—which is to say, a company's prospects for growth and profitability are already reflected in its stock price.[1] According to these skeptics, current stock prices should reflect future prospects, especially for large, well-regarded firms that are closely watched by hundreds of market professionals. It follows, they contend, that investing in shares of high-quality firms should offer no special profit opportunities.

In this edition of *Current Issues*, we bring new evidence to the debate over the merits of investing in highly regarded firms. Using the 1983-95 rankings of firms from *Fortune* magazine's annual survey *America's Most Admired Companies* (AMAC), we classify firms in ten deciles—from the most to the least favorably regarded—and track their stock performance. We find that the decile of firms deemed most admired consistently outperforms the market, yielding abnormally high returns, while the least-admired decile of firms consistently underperforms it, producing abnormally low returns.

These findings suggest that, on the whole, a high-quality firm is indeed a high-quality investment. They also suggest that market participants *underreact* to the presence of corporate quality in the short term. If the market reacts efficiently to corporate quality, one would expect investors to bid up the shares of high-quality companies to levels that would preclude earning above-average future returns. Our analysis shows, however, that the superior returns on the stocks of well-regarded companies are sustained over a long horizon. Cumulative five-year returns to investing in the most-admired firms are 125 percent; returns to investing in the least-admired firms are just 80 percent. Thus, although reputation contains information about a company's future performance, the information is not rapidly incorporated into the company's stock price.

Glamour versus Value Stocks

Buying shares in firms with fast sales growth and attractive prospects has proved especially popular with investors. Recent academic research, however, argues that glamour stocks are unlikely to yield unusually high returns. Indeed, some studies have found these stocks to be poor investments that produce below-average results. According to Lakonishok, Shleifer, and Vishny (1994), investors who adopt a so-called contrarian strategy by buying unpopular "value" stocks—stocks of companies with slow historic sales growth and uncertain prospects—fare better than holders of glamour stocks.

Researchers have advanced different theories to explain why glamour stocks would produce below-average returns. Fama and French (1992) argue that investors are willing to accept more modest returns from investing in high-quality companies because these companies pose a lower level of risk. Lakonishok, Shleifer, and Vishny speculate that investors may accept a smaller return because they derive pleasure from owning shares of blue-chip firms. Another explanation proposed by Lakonishok et al. is that investors may focus too heavily on past performance and fail to recognize that highly profitable stocks tend to revert to the mean.

Whatever the underlying cause, this research suggests that glamour stocks generally provide subpar returns. Yet these studies typically categorize firms on the basis of statistics such as past returns, growth rates, and market valuation ratios—rather than corporate reputation per se. This distinction is important because not all stocks sporting lofty market-to-book or price-to-earnings ratios are those of well-regarded companies. To differentiate more precisely between firms that have reputations for being well respected and those whose stock simply has extreme valuation ratios, our analysis ranks firms based on their scores in *Fortune* magazine's annual survey *America's Most Admired Companies*.[2]

The AMAC Survey and Our Methodology

Each fall, *Fortune* magazine sends its AMAC survey to thousands of executives and analysts, asking them to evaluate their industry's ten largest firms using several measures of corporate quality. The survey, published in the following spring, has grown in scope from twenty industries in 1983 to fifty-five at present. Respondents are asked to score the firms, on a 0 to 10 scale, in eight different areas: quality of management; quality of products and services; innovation; value as a long-term investment; financial soundness; ability to attract, develop, and keep talented people; community and environmental responsibility; and use of corporate assets.

Fortune determines each firm's ranking on the basis of its overall score, which we call its "*Fortune* rating,"

defined as an average of the firm's scores in the eight areas. The magazine reports this overall rating, but not the scores in each area. To ensure that our analysis is dependent solely on published information, we use the *Fortune* rating as a proxy for corporate reputation.

Each April, following publication of the survey, we form investment portfolios based on corporate reputation. We begin by excluding all nonpublicly traded firms from the sample.[3] We sort the remaining firms into three portfolios: the first represents the decile of most-admired firms; the second, the decile of least-admired firms; and the third, all firms in the other eight deciles. Next, we eliminate firms whose accounting data are unavailable on Compustat, because these data will be required later. By removing such firms early, we maintain a consistent sample for most of our analysis.[4]

This exercise reveals basic characteristics of the three "reputation" portfolios of firms over the survey period (Table 1). The most-admired firms generally are found to be larger and to have lower book-to-market ratios (which, according to finance theory, reflect superior growth prospects) than the other firms.[5] These firms also exhibit more consistent profitability, higher stock returns over the past three years, less variability

Table 1

Characteristics of Reputation Portfolios, 1983-95

Characteristic	Most-Admired Decile	Least-Admired Decile	Other Deciles
Fortune rating (reputation)	7.79	4.48	6.35
Market value of equity (billions of 1992 dollars)	13.53	1.04	3.23
Book-to-market ratio	0.34	1.11	0.66
Return over previous six months (percent)	13.9	13.6	12.9
Return over previous three years (percent)	100.5	12.0	70.7
Frequency of net losses over previous twelve quarters (percent)	2	38	10
Beta	1.07	1.36	1.14
Standard deviation of annual returns	0.28	0.46	0.31
Average number of firms in portfolio	24.2	19.2	190.2

Sources: For rankings, *Fortune* magazine survey *America's Most Admired Companies* (1983-95); for returns data, Center for Research of Stock Prices; for accounting data, Compustat.

Notes: Market value of equity and book-to-market ratio are the averages of the annual median values. The other reported values represent the averages of the annual mean values. Book-to-market ratio is defined as the book value of equity divided by the market value of equity. Beta measures the sensitivity of the firms' returns to the stock market index. For example, a beta of 1.07 for the most-admired decile means that a 1.00 percent unexpected increase in the stock market index on average causes a 1.07 percent increase in the value of that decile's portfolio. Figures are estimated at the time of portfolio formation at the start of April in the year of survey publication. For details, see Antunovich and Laster (1999).

of returns, and a lower sensitivity to overall stock market movements, as reflected in their "beta."[6] The least-admired firms possess the opposite characteristics.

Using information from the survey, we find that corporate reputations tend to persist over time. A firm in the most-admired decile has a 75 percent probability of remaining there the next year and a 51 percent chance of being there five years later. The probability that a firm in the least-admired decile will remain there in the next year is 59 percent—and in five years, 16 percent.

Returns to Corporate Reputation

To determine the returns to investing in high-quality firms, we examine an investment strategy using our three reputation portfolios. As noted, the portfolios are formed at the start of each April. They contain equal weights, or dollar amounts, of each stock, and they are held for five years. Each subsequent April, we rebalance the portfolios to again hold equal weights of each stock. Firms delisted during the previous year are dropped.[7]

Our investment strategy reveals that high-quality firms indeed provide superior returns (Table 2). Panel A presents the incremental annual returns to corporate reputation for the five years following portfolio formation. On average, the decile of most-admired firms outperformed the least-admired decile by 5.2 percent a year (penultimate row). The cumulative difference is even more striking: the five-year return to the most-admired firms was 125 percent, compared with an 80 percent return to the least-admired firms (bottom row).

High-quality firms are also found to yield abnormally high returns, judging from their strong performance against the market. In panel B of Table 2, we measure the returns of these firms against a market index—a benchmark portfolio of all stocks listed on the New York Stock Exchange, the American Stock Exchange, and NASDAQ—weighted in proportion to the firms' respective market capitalizations. The most-admired firms outperformed the index by an average of 3.7 percent per year, while the least-admired firms lagged it by 1.6 percent per year.[8] This pattern is consistent throughout the five years after the survey: each year, the most-admired firms fared better than the market, while in four of the five years, the least-admired fared worse.

Examining the Abnormal Returns
The abnormally high returns generated by the shares of the most-admired firms suggest that corporate reputation, as perceived by industry executives and analysts, is not fully reflected in the current stock price. This result is surprising given the characteristics of the most-admired firms. They have a larger market capitalization and a lower book-to-market ratio than the least-admired group—two characteristics that Fama and French (1992) associate with *lower* returns.[9]

Table 2
Returns to Corporate Reputation Portfolios, 1983-95
Percent

| Returns | Panel A | | | Panel B | | | Panel C | | |
| | Unadjusted | | | Market-Adjusted | | | Adjusted for Size and Book-to-Market Effects | | |
	Most-Admired Decile	Least-Admired Decile	Other Deciles	Most-Admired Decile	Least-Admired Decile	Other Deciles	Most-Admired Decile	Least-Admired Decile	Other Deciles
R_1	18.3	11.9	16.0	3.7	-2.8	1.6	3.0	-5.0	0.4
R_2	20.2	14.3	17.0	4.8	-1.1	1.2	3.4	-0.7	0.6
R_3	19.1	14.3	17.0	4.0	-0.7	1.5	1.8	-1.7	0.4
R_4	15.8	13.7	14.0	2.9	0.6	1.0	0.3	-1.5	-0.2
R_5	15.0	8.3	13.2	3.1	-3.8	1.2	1.4	-6.8	-0.1
AR	17.7	12.5	15.3	3.7**	-1.6	1.3	2.0*	-3.1*	0.2
CR	125.5	80.0	103.6	19.9**	-7.6	6.7	10.2*	-14.8*	1.1

Sources: For rankings, *Fortune* magazine survey *America's Most Admired Companies* (1983-95); for returns data, Center for Research of Stock Prices.

Notes: Portfolios are formed at the start of April after the survey publication and are held for five years. Each April, the stocks that were delisted during the year are eliminated from the portfolios and the remaining stocks are rebalanced into equally weighted portfolios. Panel A presents the unadjusted returns; panel B shows the returns measured against a value-weighted market index of all stocks listed on the New York Stock Exchange, the American Stock Exchange, and NASDAQ; panel C depicts the returns measured against a set of seventy size and book-to-market reference portfolios.

R_1 through R_5 denote the incremental annual returns in years one through five. For example, in the first year following portfolio formation, an investment in the portfolio of most-admired firms would earn an average return of 18.3 percent. AR denotes an average annual return in the five years following portfolio formation. A five-year investment in the portfolio of most-admired firms, for instance, would earn an average annual return of 17.7 percent. CR denotes a five-year compounded return. For example, an estimated five-year compounded return on the most-admired decile is 125.5 percent.

*Statistically significant at the 5 percent level.
**Statistically significant at the 1 percent level.

To determine whether the return differences across our three portfolios are attributable to size and book-to-market effects rather than corporate reputation, we compute returns adjusted for these characteristics. These returns are based on a grid of seventy size and book-to-market reference portfolios as proposed by Lyon, Barber, and Tsai (1999).[10] The size- and book-to-market-adjusted returns are calculated by subtracting from the return on each sample firm the return on the corresponding reference portfolio that best matches the sample firm according to its size and market-to-book ratio. If the returns to reputation are attributable to these characteristics, the returns adjusted for size and book-to-market effects should be statistically indistinguishable from zero.

Our results reject this hypothesis. Size and book-to-market effects cannot explain the abnormal positive returns to the decile of most-admired firms or the abnormal negative returns to the decile of least-admired firms. The decile of most-admired firms outperformed the reference portfolios by 2.0 percent per year while the least-admired firms underperformed the reference portfolios by 3.1 percent (Table 2, panel C). Both results are significant at the 5 percent level.[11]

We also address the possibility that our abnormal returns to reputation derive from other anomalies documented in the literature. For example, Jegadeesh and Titman (1993) find that the stocks with the best returns over the past six months continue doing well for up to nine months thereafter, while the opposite is true for the laggards. Our results cannot be explained by this "momentum" anomaly because our deciles of most- and least-admired firms produce almost identical returns over the past six months (Table 1). Furthermore, whereas stock returns exhibit a short-run momentum, they tend to revert in the long run. DeBondt and Thaler (1985, 1987), for instance, find that the "winner" stocks—those with the best performance over the past three years—tend to underperform the market for the next several years, while the past "losers" outperform it. For our results to be consistent with this "reversal" anomaly, the returns on the most-admired decile should trail those of the least-admired decile over the past three years. However, as Table 1 shows, we find just the opposite. Therefore, the superior performance of the most-admired firms cannot be attributed to either momentum or reversal anomalies.

In addition, we examine the extent to which the abnormal returns to reputation can be attributed to industry effects. In a more formal analysis (Antunovich and Laster 1999), we find a roughly even split between industry- and firm-specific components. In other words, industries whose firms on average have high *Fortune* ratings are found to outperform industries with low ratings. This result suggests that the observed mispricing is due partly to the reputation of the individual firms and partly to the reputation of the entire industry.

## Executives' and Analysts' Rankings

The *Fortune* survey draws upon the expertise of two industry groups: executives and analysts. By isolating the ratings assigned by one group from those assigned by the other, we should obtain information that reflects each group's unique relationship with its industry.[12] A comparison of the ratings of the two groups will then allow us to address some interesting questions.

First, how similar are the reputation rankings of each group? Agreement among executives and analysts on rankings would make us more comfortable using the survey data as a proxy for a firm's underlying quality. Second, how do the stocks favored by each group fare as investments? If there is a clear disparity in stock performance, we might conclude that one group's rankings reflect superior insight into the future performance of firms in its industry—and that the portfolio returns based on those rankings result from this insight.

To explore these questions, we follow the same procedure of sorting firms into three portfolios (most-admired, least-admired, and other deciles), but in this case, we create two sets of portfolios to reflect the different rankings assigned by our two respondent groups. We find that the composition of the deciles is very similar for the analysts and the executives: the overlap between rankings is 57 percent for the most-admired firms and 69 percent for the least-admired ones. (If the reputation scores were merely a random occurrence, the overlaps would have been only about 10 percent.) Such large overlaps suggest that reputation has fundamental elements upon which respondents can agree and that the survey data—by consistently capturing this information—are a suitable proxy for corporate quality.

Next, we determine how the analysts' and executives' most- and least-admired firms fared. Taken individually, each group's decile of most-admired firms outperformed the market. Over a one-year horizon, the decile of firms most admired by executives outperformed the market in eight of eleven years, compared with seven years for the analysts' decile. A direct comparison between executives and analysts, however, yields mixed results. Although the executives' most-admired decile outperformed the analysts' top decile in seven of eleven years, it had a slightly lower average return over the entire sample. By contrast, over a five-year investment horizon, the executives show a clear advantage: their most-admired decile outperformed the analysts' decile by 12 percent; their least-admired decile underperformed the analysts' decile by 19 percent (see chart).

Five-Year Returns on Deciles of Portfolios Formed on the Basis of Executives' and Analysts' Opinions

Percent return
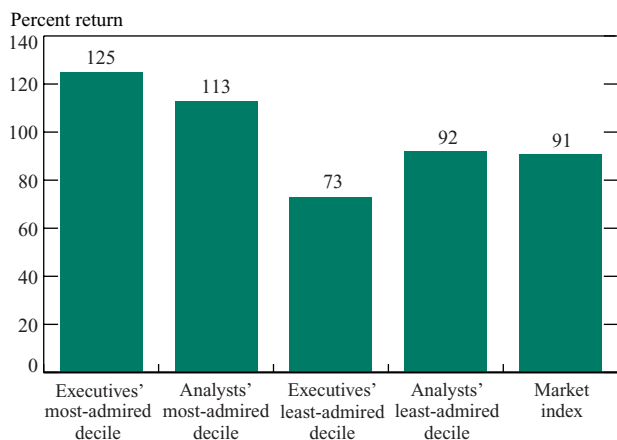
Sources: For rankings, *Fortune* magazine survey *America's Most Admired Companies* (1985-95); for returns data, Center for Research of Stock Prices.

Notes: Portfolios are formed at the start of April after the survey publication and are held for five years. Each April, the stocks that were delisted during the year are eliminated from the portfolios and the remaining stocks are rebalanced into equally weighted portfolios. The bars show returns based on five-year, buy-and-hold investments. For example, investment in the decile of executives' most-admired firms yields an average cumulative return of 125 percent over the five years following portfolio formation. The last bar represents the returns on an equally weighted market index.

The opinions of both executives and industry analysts are indeed valuable components of the *Fortune* survey. Nevertheless, executives appear to have clearer insight into the future performance of companies. This advantage cannot be attributed to insider information, because executives are evaluating other firms in their industry, not their own. Rather, it is possible that executives' close knowledge of their own firms gives them an edge in assessing their industry peers.

Conclusion

Our analysis of the relationship between corporate reputation and stock returns suggests that reputation plays an important long-term role in shaping investment results. We find that the most-admired firms, as reported in a *Fortune* magazine survey, on average outperform the market, while the least-admired firms underperform it. Our results are not driven by size, book-to-market, or momentum effects. These findings suggest that investors actually underreact to corporate quality in the short term, such that an investment in the most-admired firms yields higher returns than an investment in the least-admired firms for at least five years after the survey is published. Our findings add to a series of anomalies in which investors underreact to public information, such as the incomplete reaction to earnings surprises (Bernard and Thomas 1990) and an underreaction to analysts' buy-and-sell recommendations (Womack 1996).[13]

In addition, industry executives' opinions of firm reputation are found to be better predictors of stock returns than the opinions of industry analysts. The difference is especially pronounced for investment horizons of more than one year. This finding suggests that executives may have a better understanding of their industry than do analysts, who in turn are better informed than the investing public.

Notes

1. Fama (1970, 1991) provides an excellent review of this research.

2. Shefrin and Statman (1995, 1998) also use the AMAC rankings in their research. However, they do not examine the returns to investing in portfolios of well-regarded or poorly regarded firms.

3. For a firm to be included in our analysis, its returns must be available on the Center for Research of Stock Prices (CRSP) data-base and its accounting data must be available on the Compustat database. CRSP and Compustat are the standard sources for U.S. stock price and accounting data.

4. In particular, accounting figures are needed to adjust stock returns for the effects of firm size and book-to-market ratio. Note that we eliminate the firms without the relevant Compustat data only after we have sorted them into the three groups based on corporate reputation. The rationale behind this sequence is to rely on freely available information. Because information on whether Compustat data are available for a particular firm can be obtained only at cost, we cannot form our deciles of most- and least-admired firms based on this information. The negative side effect of this procedure is that the least-admired decile is left with fewer firms than the most-admired decile because the least-admired firms, which tend to be smaller, are more likely to lack the Compustat data. Nevertheless, our results are robust to alternative sorting procedures.

5. These results accord with the findings of Shefrin and Statman (1995, 1998), who further note that the most-admired firms' dual characteristics of large market capitalizations and low book-to-market ratios are the very ones that researchers such as Fama and French (1992) associate with low returns. Shefrin and Statman therefore hypothesize that investing in well-regarded firms produces disappointing returns, but they do not test this hypothesis directly.

6. Beta measures the risk of an individual stock from the perspective of a well-diversified investor. Statistically, it is defined as the covariance of the returns on the stock with the market return divided by the variance of the market return.

7. If a firm is delisted during a given annual holding period, the missing returns from the day of delisting until the end of the holding period are replaced with returns on a value-weighted index of New York Stock Exchange, American Stock Exchange, and NASDAQ stocks. This procedure eliminates a potential survivorship bias.

8. We define an abnormal return as the difference between the return on a reputation portfolio and the return on the market index. A positive abnormal return means that the reputation portfolio has outperformed the market index. Although the most-admired decile outperformed the market index by an average of 3.7 percent, the least-admired decile underperformed it by only 1.6 percent. This

asymmetry arises because the market index had lower average returns than did the firms in our sample. For the same reason, our third portfolio—containing the other eight deciles—outperformed the market index by an average of 1.3 percent a year.

9. Our results do not necessarily contradict those of Fama and French, because our sample is a subset of their firms and our time period differs from theirs. However, some researchers have shown that the Fama and French results are not particularly robust. Knez and Ready (1997), for example, indicate that the size effect found by Fama and French completely disappears after eliminating 1 percent of the extreme return observations each month.

10. Mirroring our procedure for the sample firms, we construct the reference portfolios at the beginning of each April; each stock in the portfolios is given an equal weight and the weights are rebalanced at the start of each April.

11. When calculating the test statistics, we are faced with the problem of a cross-sectional dependence in returns caused by the persistence in the reputation rankings. Because we form portfolios annually and calculate returns for holding periods up to five years, the dependence in the returns can extend up to four years. To address this problem, we compute the test statistics by using an estimated variance-covariance matrix that includes the covariances up to the fourth lag. For a more detailed discussion of this procedure, see Lyon, Barber, and Tsai (1999).

12. Although the ratings by respondent group are not published in *Fortune*, we obtained them from the magazine's commercially available database. However, the breakdown of the data by respondent group begins only in 1985, shortening by two years the sample period used in this part of our study.

13. Recent behavioral models try to explain these anomalies by appealing to investors' judgment biases. See Fama (1998) for a survey.

References

Antunovich, Peter, and David S. Laster. 1999. "Do Investors Mistake a Good Company for a Good Investment?" Federal Reserve Bank of New York *Staff Reports*, no. 60.

Bernard, Victor L., and Jacob K. Thomas. 1990. "Evidence that Stock Prices Do Not Fully Reflect the Implications of Current Earnings for Future Earnings." *Journal of Accounting and Economics* 13, no. 4: 305-40.

DeBondt, Werner F. M., and Richard H. Thaler. 1985. "Does the Stock Market Overreact?" *Journal of Finance* 40, no. 3: 793-805.

———. 1987. "Further Evidence on Investor Overreaction and Stock Market Seasonality." *Journal of Finance* 42, no. 3: 557-81.

Fama, Eugene F. 1970. "Efficient Capital Markets: A Review of Theory and Empirical Work." *Journal of Finance* 25, no. 2: 383-417.

———. 1991. "Efficient Capital Markets: II." *Journal of Finance* 46, no. 5: 1575-1617.

———. 1998. "Market Efficiency, Long-Term Returns, and Behavioral Finance." *Journal of Financial Economics* 49, no. 3: 283-306.

Fama, Eugene F., and Kenneth R. French. 1992. "The Cross-Section of Expected Stock Returns." *Journal of Finance* 47, no. 2: 427-65.

Jegadeesh, Narasimhan, and Sheridan Titman. 1993. "Returns to Buying Winners and Selling Losers: Implications for Stock Market Efficiency." *Journal of Finance* 48, no. 1: 65-91.

Knez, Peter J., and Mark J. Ready. 1997. "On the Robustness of Size and Book-to-Market in Cross-Sectional Regressions." *Journal of Finance* 52, no. 4: 1355-82.

Lakonishok, Josef, Andrei Shleifer, and Robert W. Vishny. 1994. "Contrarian Investment, Extrapolation, and Risk." *Journal of Finance* 49, no. 5: 1541-78.

Lyon, John D., Brad M. Barber, and Chih-Ling Tsai. 1999. "Improved Methods for Tests of Long-Run Abnormal Returns." *Journal of Finance* 54, no. 1: 165-201.

Shefrin, Hersh, and Meir Statman. 1995. "Making Sense of Beta, Size, and Book-to-Market." *Journal of Portfolio Management* 21, no. 2: 26-34.

———. 1998. "Comparing Expectations about Stock Returns to Realized Returns." Unpublished paper, Santa Clara University.

Womack, Kent L. 1996. "Do Brokerage Analysts' Recommendations Have Investment Value?" *Journal of Finance* 51, no. 1: 137-67.

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