## A Great Company Can Be a Great Investment

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# A Great Company Can Be a Great Investment

# Jeff Anderson and Gary Smith

A classic investment mistake is to confuse a great company with a great investment. It is a mistake because a company's well-known virtues are presumably already factored into the price of the company's stock. This study tested this "mistake" by looking at the stock performance of the companies identified each year by Fortune magazine as the most admired companies in the United States for 1983 through 2004. Surprisingly, a portfolio of these stocks outperformed the market by a substantial and statistically significant margin, which contradicts the efficient market hypothesis.

hen we buy groceries, clothing, or a television set, we ask not only whether the food is good, the clothing attractive, and the television well built; we also ask how much each item costs. Is it worth the price? When we buy stock, we should ask the same question—not whether it is issued by a good company, but whether the price is right. Is the stock worth the cost? The relevant question is not whether Dell is a better company than Hewlett-Packard but whether Dell stock at \$40 a share is a better buy than HP stock at \$20 a share.

# Too Steep or Too Cheap?

In the study reported here, we used *Fortune* magazine's annual list of "America's Most Admired Companies" for 1983 through 2004 to gauge whether great companies are great investments or lousy investments.

In an efficient market, all publicly available information should be taken into account by investors buying and selling the stock; thus, the information should be fully reflected in the market price. If a company is considered to be "great," then it should trade at a price that gives investors, taking into account risk and other characteristics that are relevant for their investment decisions, an appropriate anticipated return. If investors have insufficient respect for the efficient market hypothesis, however, and generally flock to great companies—with scant regard for stock price—these companies' prices will typically be excessive and the actual returns will be inadequate. If investors are restrained in their enthusiasm for great

Jeff Anderson is portfolio administrator at Mellon Financial Corporation, Glendale, California. Gary Smith is Fletcher Jones Professor of Economics at Pomona College, Claremont, California. companies (perhaps because of a misplaced faith in the efficient market hypothesis and insufficient appreciation for the ability of great companies to generate a rewarding cash flow), then these stocks may, in fact, be cheap.

#### Might Great Companies Be Too Expensive?

A Wall Street Journal article some 15 years ago (Dorfman 1991) quoted international money managers professing that Toyota Motor Corporation and American Honda Motor Company "make beautiful cars" and that Toyota "is the premier car company in the world." The article argued, however, that purchasing Toyota and Honda stock "would be a classic mistake—confusing a great company with a great stock." This language—"a classic mistake"—reflects the considerable anecdotal evidence that many investors do confuse a great company with a great stock.

For example, a traditional criterion for judging a money manager's competence is "prudence," so money managers may try to insulate themselves from criticism by investing only in widely admired companies. Ironically, this mentality of following the herd to avoid being labeled imprudent can cause glamorous companies to have overpriced stock. Indeed, a pervasive willingness to buy no matter what the price virtually guarantees that a stock will be overpriced. Tobias (1978) reported a lunch discussion he had with an executive for a bank managing billions of dollars during the Nifty Fifty mania in the 1970s as follows:

[He] told me that it was his bank's policy to invest only in companies whose earnings they expected to grow at an above-average rate. What about companies they expected to grow at only an average or subaverage rate? No, he said, they did not buy stock in such companies. Regardless of price? Regardless of price. Was there any price at which the bank would buy stock in an average-growth company?

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This question made the money manager uncomfortable. He clearly wanted to answer no, because he clearly would be damned before he would buy stock in such a company. But he could not come right out and say that, because he knew that, theoretically, there must be some price at which he should choose the stock of the mediocre company over the stocks of his nifty fifty. (p. 74)

Some prominent investors explicitly recommend picking stocks by picking companies, with seemingly little regard for the price of the company's stock. For example, Fisher (1958) advocated a system he called "scuttlebutt," which involves talking to a company's managers, employees, customers, suppliers, and knowledgeable people in the industry to identify able companies with good growth prospects. Similarly, legendary money manager Peter Lynch purchased one company's stock based on the CEO's impressive grasp of retailing facts and figures (Lynch and Rothchild 1994). His principle No. 14 is: If you like the store, chances are you'll love the stock. Some of his biggest winners came from going to a mall with his daughters, giving them some money, and seeing where they spent it.

Fisher's scuttlebutt might be justified by the argument that it takes more than numbers to identify a great company; Lynch's shopping strategy might be justified by the argument that new stores fly under Wall Street's radar. Nonetheless, in lesser hands, these arguments can surely lead investors to focus their attention on the company, not the stock. If the herdlike instincts of investors push the prices of popular stocks to unjustifiable levels, then perhaps the road to investment success is to do the opposite.

Regression to the Mean. The educational testing literature provides a framework for explaining the statistical principle of regression to the mean. A person's observed test scores fluctuate about an unobserved latent trait measured by the test. This latent trait (the "true score") can be interpreted as the expected value of a person's test score, with the difference between a person's test score and true score called the "error score" (Lord and Novick 1968). Among a group of test takers, those who score the highest are likely to have had positive error scores; it is possible, but unusual, for someone to score below his or her true score and still have the highest score on a test. Because a score that is high relative to the group is also likely to be high relative to that person's true score, this person's score on another test is likely to regress toward the mean.

This framework is directly applicable to a company's earnings. Actual earnings and predicted earnings both deviate from the probabilistic expected value of a company's earnings ("true earnings"). Actual or predicted earnings that are high relative to a group of companies are also likely to be high relative to that company's true earnings. It is possible, but unlikely, that the most profitable company in 1998 had a negative error score that year, with earnings below its expected value. It is possible, but unlikely, that the company predicted to be the most profitable in 1999 had a negative error score that year, with the prediction below the expected value of earnings.

We can consequently anticipate regression toward the mean when comparing consecutive earnings data or when comparing predicted and actual earnings. Freeman and Tse (1992) and Fama and French (2000) investigated the first idea and found that successive earnings regress to the mean, although the authors attributed this regression to competitive forces rather than the purely statistical explanation that the error scores of companies with relatively high earnings are more likely to be positive than negative. Smith, Keil, and Smith (2004) looked at the second idea and found persuasive evidence that earnings forecasts are systematically too extreme—too optimistic for companies predicted to do well and too pessimistic for those predicted to do poorly. The accuracy of these forecasts can be improved consistently and substantially by shrinking them toward the mean forecast.

Well-established evidence indicates that regression to the mean is a pervasive but subtle statistical principle that is often misunderstood or insufficiently appreciated (Kahneman and Tversky 1973). In the stock market, Keynes (1936) observed that

day-to-day fluctuations in the profits of existing investments, which are obviously of an ephemeral and nonsignificant character, tend to have an altogether excessive, and even absurd, influence on the market. (pp. 153–154)

Lakonishok, Shleifer, and Vishny (1994) and La Porta (1996) provided formal evidence.

If investors generally do not understand regression to the mean, they are likely to overestimate a company's "true greatness" and pay too much for the company's stock, a decision they will regret when measures of the company's greatness regress to the mean.

#### Might Great Companies Be Too Cheap?

Great companies' stocks may be undervalued for several reasons. Jaded investors, believing that where there is smoke there is hype, may be overly skeptical of great companies. Risk-taking investors

July/August 2006 www.cfapubs.org 87

may neglect great companies because they want to buy lottery tickets by investing in young companies. Investors may neglect great companies because they underestimate these companies' abilities to generate a rewarding cash flow. Or perhaps, they have too much faith in the efficient market hypothesis.

# What 22 Years of *Fortune* Data Reveal

Since 1983, Fortune magazine has published an annual list of the 10 most admired companies in the United States. The 2005 list was based on a survey of 10,000 executives, directors, and security analysts who rated the companies in their industry on a scale of 1 to 10 in eight areas of leadership: innovation, financial soundness, use of corporate assets, longterm investment, people management, quality of management, social responsibility, and quality of products/services. These ratings were averaged to determine the rankings in each industry. The 10,000 participants were then asked to name the companies they admired most in any industry from a list that comprised the two companies with the highest average scores in each industry and companies whose vote totals were among the top quartile the previous year.<sup>2</sup>

The top 10 (in order) in 2005 were Dell, General Electric Company, Starbucks Corporation, Wal-Mart Stores, Southwest Airlines Company, FedEx Corporation, Berkshire Hathaway, Microsoft Corporation, Johnson & Johnson, and Procter & Gamble. The top-10 most admired companies for 1983 through 2004 are shown in **Exhibit 1**. We did not use the 2005 companies in our analysis because of the small number of postpublication daily returns available for them.

With the exception of Levi Strauss & Company, Shell Oil, and United Parcel Service of America (UPS), which were not publicly traded, we used the CRSP database to obtain the daily returns on every top-10 company for each year from 1983 through 2004 beginning on that year's Fortune publication date. For example, the daily return data for 1983's selections begin on 10 January 1983, the day that year that the top-10 list was published.

Our *Fortune*-based investment strategy involved investing an equal dollar amount in each of the most admired stocks each year. In one set of calculations, the portfolio trading day for this investment was the publication date. (Investors could easily implement this strategy because *Fortune* is actually sold a few days before the publication date given on the magazine cover.) In our other calculations, the portfolio trading day was 5, 10, 15, or 20 market days (approximately one to four weeks) after

the publication date. The *Fortune* portfolio was initially formed on 1983's trading day; for each year thereafter, the portfolio was liquidated on that year's trading day and the proceeds were reinvested in that year's most admired companies. The S&P 500 Index strategy used for comparison was to be fully invested in the S&P 500 for the entire 22 years.

For an initial look at the statistical significance of our results, we applied a matched-pair test to the daily difference between the returns on the *Fortune* portfolio and the S&P 500 portfolio. The null hypothesis was that the expected value of the difference in each day's return was zero:  $H_0$ : m=0. The t-statistic was calculated as

$$t = \frac{\overline{X} - 0}{s / \sqrt{n}},$$

where

 $\bar{X}$  = mean of daily differences

s =standard deviation of daily differences

n =number of daily differences

We report two-sided *p*-values because we could not rule *a priori* on the possibility that the *Fortune* portfolio would do better or worse than the S&P 500 portfolio.

**Table 1** summarizes the daily returns from these strategies. The *Fortune* strategy beat the S&P 500 by a margin that is both substantial and statistically persuasive. Over 250 trading days, daily returns of 0.000651 and 0.000439 imply respective annual returns of 17.7 percent and 13.0 percent.

We concluded that this observed difference in returns is unlikely to represent some sort of risk premium, because the companies selected as America's most admired are large and financially sound and their stocks are unlikely to be viewed by investors as riskier than average. To investigate this conclusion formally, we estimated the Fama–French (1993) three-factor model augmented by a momentum factor (see Carhart 1997):<sup>3</sup>

$$R = \alpha + \beta_1 MKT + \beta_2 SMB + \beta_3 HML + \beta_4 UMD + \epsilon,$$
 where

R = return on the *Fortune* portfolio minus the one-month U.S. T-bill rate

MKT = market factor: value-weighted return on all NYSE, Amex, and NASDAQ stocks (from CRSP) minus the onemonth T-bill rate (calculated by French from Ibbotson Associates and CRSP data)

SMB = size factor: small minus big—that is, average return on three small-cap portfolios minus average return on three large-cap portfolios

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Exhibit 1. The Most Admired Companies (continued) (publication date in parentheses)

	1999 (1 March)	2000 (21 February)	2001 (19 February)	2002 (4 March)
1	GE	GE	GE	GE
2	Coca-Cola	Microsoft	Cisco Systems	Southwest Airlines
3	Microsoft	Dell	Wal-Mart	Wal-Mart
4	Dell	Cisco Systems	Southwest Airlines	Microsoft
5	Berkshire Hathaway	Wal-Mart	Microsoft	Berkshire Hathaway
6	Wal-Mart	Southwest Airlines	Home Depot	Home Depot
7	Southwest Airlines	Berkshire Hathaway	Berkshire Hathaway	Johnson & Johnson
8	Intel	Intel	Charles Schwab Corp.	FedEx
9	Merck	Home Depot	Intel	Citigroup
10	Walt Disney	Lucent Technologies	Dell	Intel
	2003 (3 March)	2004 (8 March)		
1	Wal-Mart	Wal-Mart		
2	Southwest Airlines	Berkshire Hathaway		
3	Berkshire Hathaway	Southwest Airlines		
4	Dell	GE		
5	General Electric	Dell		
6	Johnson & Johnson	Microsoft		
7	Microsoft	Johnson & Johnson		
8	FedEx	Starbucks		
9	Starbucks	FedEx		
10	Procter & Gamble	IBM		

<sup>&</sup>lt;sup>a</sup>Shares not publicly traded.

HML = book-to-market factor: high minus low—that is, average return on two value (high book value—to-market value) portfolios minus the average return on two growth (low book value—to-market value) portfolios

UMD = momentum factor: up minus downaverage return on two highprior-return (for one year) portfolios
minus average return on two lowprior-return portfolios

This specification reflects the historical evidence that certain macro factors cause stock returns to be positively correlated. Small stocks tend to outperform big stocks (Banz 1981; Reinganum 1981); value stocks tend to outperform growth stocks (Rosenberg, Reid, and Lanstein 1985); and stocks that have been doing well tend to outperform those doing poorly (Jegadeesh and Titman 1993). The question of whether these macro factors reflect risks that matter to investors is unsettled (Chan 1988; Fama and French 1992), as is the question of whether the findings are evidence of market inefficiencies (Lakonishok, Shleifer, and Vishny 1994).

Table 1. Daily Returns from Purchases *n* Days after *Fortune*'s Publication Date, 1983–2004

	Fortune Portfolio		S&P 500 Portfolio		<i>v</i> -Value for
n	Mean	Standard Deviation	Mean	Standard Deviation	Difference in Means
0	0.000651	0.012720	0.000439	0.010557	0.0067
5	0.000666	0.012707	0.000437	0.010558	0.0035
10	0.000667	0.012700	0.000441	0.010560	0.0040
15	0.000668	0.012690	0.000440	0.010554	0.0037
20	0.000666	0.012657	0.000439	0.010554	0.0036

90 www.cfa**pubs**.org ©2006, CFA Institute

<sup>&</sup>lt;sup>b</sup>A tie.

<sup>&</sup>lt;sup>c</sup>A tie.

Here, however, the question is whether the relatively strong performance of the *Fortune* portfolio can be explained by these four factors of market, size, value, and momentum. *A priori*, we thought the first three factors appeared to be unlikely candidates because we expected the most admired companies to have unremarkable betas, to be large companies, and to be growing briskly with low book-to-market ratios.

All of the factor data came from Kenneth French's website. Table 2 shows the results. The substantial and statistically significant alpha values show that these four factors do not explain the strong performance of the Fortune portfolio. Over 250 trading days, the annualized value of a 0.00026 daily excess return is 6.5 percent. The results were very similar when we tested delays of various lengths in implementing the trading strategy. The coefficient for the market factor is slightly less than 1, and the coefficients for the other three factors are negative. Because the *Fortune* companies are relatively large, the negative coefficient for the SMB factor is no surprise. The negative coefficient for the HML factor is consistent with the conclusion of Fama and French (1995) that strong companies with consistently strong earnings tend to have negative HML coefficients. We had no prior expectations about the UMD factor. The success of the Fortune portfolio does not appear to be attributable to the effects of market, size, value, or momentum. Annual transaction costs would reduce the realized returns slightly, but large excess returns remain that are difficult to reconcile with the efficient market hypothesis.

Nor is the difference in returns the result of the extraordinary performance of a few companies. Over this period, a total of 214 top-10 stocks were used in the *Fortune* portfolio. Depending on how many days after publication the portfolio was formed, the number of *Fortune* stocks beating the

S&P 500 during their top-10 year ranges from 122 (57.0 percent with a two-sided binomial *p*-value of 0.047) to 125 (58.4 percent with a two-sided binomial *p*-value of 0.034).

Another way to view the data is to average the returns across portfolios beginning on each year's publication date. Thus, we examined the daily returns for the 1983 Fortune top-10 portfolio and the S&P 500 portfolio for five years beginning on the 10 January 1983 publication date, and we examined the daily returns for the 1984 Fortune top-10 portfolio and the S&P 500 portfolio for five years beginning on the 9 January 1984 publication date. After doing this for all 22 Fortune portfolios, we averaged the stock returns and the S&P 500 returns on the first trading day, on the second trading day, and so on.

**Table 3** summarizes the levels of wealth for the *Fortune* portfolio and the S&P 500 portfolio at 250-day intervals over the five-year period encompassing the selection year and four subsequent years (there are only four years of data for the 2001 selections, three years for 2002, two years for 2003, and one year for 2004). For example, the 22 *Fortune* portfolios achieved, on average, a 16.51 percent increase in value 250 trading days after the publication date, whereas the S&P 500 showed an average increase of only 10.27 percent. The differences in average wealth grow increasingly pronounced and statistically significant as the horizon lengthens.

**Figure 1** shows the daily results summarized at 250-day intervals in Table 3. The wealth lines diverge more over time because of the compounding of the persistent differences in returns. **Figure 2** shows the ratio of the *Fortune* portfolio wealth to the S&P 500 portfolio wealth over the same five-year horizon as in Figure 1. Little or no announcement effect is visible, and in general, there is no unique time when the *Fortune* portfolio outpaced the S&P 500 portfolio. Rather, the *Fortune* portfolio consistently outperformed the S&P 500 portfolio year after year.

Table 2. Estimates for a Four-Factor Model, 1983–2004 Data (*t*-statistics in parentheses)

Delay	Mean Excess						
(days)	Return, R	Alpha	MKT	SMB	HML	UMD	Adjusted $R^2$
0	0.00045	0.00026	0.94	-0.37	-0.42	-0.08	0.81
		(3.44)	(85.72)	(24.54)	(21.34)	(7.24)	
5	0.00046	0.00027	0.94	-0.36	-0.42	-0.09	0.81
		(3.67)	(85.45)	(24.30)	(20.97)	(7.88)	
10	0.00047	0.00027	0.94	-0.36	-0.41	-0.09	0.81
		(3.65)	(85.35)	(24.32)	(20.85)	(8.20)	
15	0.00047	0.00028	0.94	-0.36	-0.41	-0.10	0.81
		(3.71)	(85.56)	(24.34)	(20.83)	(8.86)	
20	0.00047	0.00028	0.94	-0.36	-0.41	-0.09	0.81
		(3.69)	(85.82)	(24.55)	(20.83)	(8.41)	

July/August 2006 www.cfa**pubs**.org **91** 

### Conclusion

A portfolio consisting of the stocks identified annually by *Fortune* magazine as America's most admired companies outperforms the S&P 500 whether the stocks are purchased on the publication date or 5, 10, 15, or 20 trading days later. This result is a clear challenge to the efficient market hypothesis, because *Fortune's* picks are readily available

public information. We have no compelling explanation for this anomaly. Perhaps Fisher (1958) was right: The way to beat the market is to focus on scuttlebutt—those intangibles that do not show up in a company's balance sheets—and *Fortune*'s list of the most admired is the ultimate scuttlebutt.

This article qualifies for 1 PD credit.

#### **Notes**

- 1. See http://money.cnn.com/magazines/fortune.
- 2. Earlier surveys were based on similar criteria.
- 3. Factor descriptions and portfolios are from Fama and French (1993) and Kenneth French's website:
- http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data\_library.html.
- 4. See previous note. We retrieved data on 20 September 2005.

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July/August 2006 www.cfa**pubs.**org **93**