

A Great Company Can be a Great Investment

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### Abstract

A classic investing mistake is to confuse a great company with a great investment, since a company's well-known virtues are presumably already factored into the price of the company's stock. We test this "mistake" by looking at the stock performance of the companies identified each year by Fortune magazine as America's most admired companies. Surprisingly, a portfolio of these stocks outperformed the market by a substantial and statistically significant margin, contradicting the efficient market hypothesis.

## **A Great Company Can be a Great Investment**

When 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, but how much it costs. Is it really 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 it 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.

In an efficient market, all publicly available information should be taken into account by investors buying and selling the stock and thus be fully reflected in the market price. If it is well known that a company is great, then it should trade at a price that gives investors an appropriate anticipated return, taking into account risk and other characteristics that are relevant for their investment decisions.

If, on the other hand, investors generally flock to great companies with insufficient respect for the efficient market hypothesis and scant regard for the stock's price, these prices will typically be excessive and the actual returns will be inadequate. Or perhaps investors are too restrained 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. This paper will use Fortune magazine's annual list of "America's Most Admired Companies" to gauge whether great companies are great investments or lousy investments.

### **Might Great Companies be Too Expensive?**

A Wall Street Journal article [Dorfman and Stertz 1991] quoted international money managers professing that Toyota and Honda "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” and money managers might 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 over-priced stock. Indeed, a pervasive willingness to buy no matter what the price virtually guarantees that a stock will be overpriced. Andrew Tobias [1978] tells of a lunch discussion with an executive for a bank managing billions of dollars during the Nifty Fifty mania in the 1970s:

[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?

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 couldn’t 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.

Some prominent investors explicitly recommend picking stocks by picking companies, with seemingly little regard for the price of the company’s stock. For example, Philip Fisher (1958) advocates a system he calls “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 (1994) purchased one firm's stock based on the CEO's impressive grasp of retailing facts and figures. His Peter's Principle #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, they can surely lead investors to focus their attention on the company, not the stock. If the herd-like 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 the 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. Since 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) investigate the first question and find that successive earnings regress to the mean, although they attribute 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) look at the second question and find 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.

There is well-established evidence 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.” Lakonishok, Shliefer, and Vishny (1994) and La Porta (1996) provide 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?**

It is theoretically possible that jaded investors are overly skeptical of great companies, believing that where there is smoke there is hype. It is also possible that investors neglect great companies because they want to buy lottery tickets by investing in young companies. Or perhaps investors neglect great companies because they underestimate these companies' ability to generate a rewarding cash flow. Or perhaps they have too much faith in the efficient market hypothesis.

### **Twenty-Two Years of Fortune**

Since 1983, Fortune magazine has published an annual list of the ten most-admired American companies. The 2005 list (Fortune 2005) was based on a survey of 10,000 executives, directors, and securities analysts who first rated the companies in their industry on a scale of 1 to 10 in 8 areas of leadership: innovation, financial soundness, use of corporate assets, long-term investment, people management, quality of management, social responsibility, and quality of products/services. These votes were averaged to determine the rankings in each industry. The 10,000 participants were then asked to name the companies they admire most in any industry from a list that included the two companies with the highest average scores in each industry and companies whose vote totals were among the top quartile the previous year. The top 10 (in order) in 2005 were Dell, General Electric, Starbucks, Wal-Mart, Southwest Airlines, FedEx, Berkshire Hathaway, Microsoft, Johnson & Johnson, and Proctor & Gamble.

Earlier surveys were based on generally similar criteria. The top-10 most-admired companies for 1983 through 2004 are shown in Table 1. The 2005 companies are not used in our analysis because of the small number of post-publication daily returns.

With the exception of Levi Strauss, Shell Oil, and UPS, which were not publicly traded, the Center for Research in Security Prices (CRSP) data base was used to obtain the daily returns on

every top-10 company for each of the years 1983 through 2004, beginning on that year's publication date. For example, the daily return data for 1983's selections begin on January 10, 1983.

Our Fortune strategy involves investing an equal dollar amount in each of the most admired stocks each year. In one set of calculations, the trading day for this investment is the publication date. (Investors can easily implement this strategy because the magazine is actually sold a few days before the publication date given on the magazine cover.) In our other calculations, the portfolio trading day is 5, 10, 15, or 20 market days (approximately 1 to 4 weeks) after the publication date. The Fortune portfolio is initially formed on 1983's trading day; each year thereafter, the portfolio is liquidated on that year's trading day and the proceeds are reinvested in that year's most admired companies. The S&P 500 strategy is to be fully invested in the S&P 500 index over the entire 22 years.

To test 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&P500 portfolio. The null hypothesis is that the expected value of the difference in each day's return is zero:  $H_0: \mu = 0$ .

The t-statistic is

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

where  $\bar{X}$  is the mean of the daily differences,  $s$  is the standard deviation of the daily differences, and  $n$  is the number of daily differences. We report two-sided p-values since, as explained earlier, we cannot *a priori* rule out the possibility that the Fortune portfolio will do better or worse than the S&P500 portfolio.

Table 2 summarizes the daily returns from these strategies. The Fortune strategy beats the S&P500 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% and 13.0%.) It is unlikely that this observed difference in returns is some sort of risk premium since 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. The beta for the Fortune 500 portfolio is 1.07, slightly above-average.

Nor is the difference in returns due to 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 ranged from 122 (57.0% with a two-sided binomial p-value of 0.047) to 125 (58.4% 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 look at the daily returns for the 1983 Fortune Top-10 and the S&P 500 for 5 years, beginning on the January 10, 1983 publication date. Similarly, we look at the daily returns for the 1984 Fortune Top-10 and the S&P 500 for 5 years, beginning on the January 9, 1984 publication date. After doing this for all 22 Fortune portfolios, we average 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 21 portfolios consisting of the Fortune's 10 most admired stocks showed, on average, a 16.51% increase in value 250 trading days after the publication date, while the S&P 500 showed an average increase of only 10.27%. 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 due to the compounding of the persistent difference in returns. Figure 2 shows the ratio of the Fortune-portfolio wealth to the S&P 500-portfolio wealth over the same 5-year horizon as in Figure 1. There is little or no announcement effect and, more generally, no unique time when the Fortune portfolio outpaces the S&P portfolio. Instead, the Fortune portfolio consistently outperforms the S&P portfolio year after year.

### **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 is a clear challenge to the efficient market hypothesis since Fortune's picks are readily available public information. We have no compelling explanation for this anomaly. Perhaps Philip Fisher was right: the way to beat the market is to focus on scuttlebutt—those intangibles that don't show up in a company's balance sheets—and Fortune's most-admired survey is the ultimate scuttlebutt.

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Table 1 The Most Admired Companies, publication date in parentheses

	1983 (1/10)	1984 (1/9)	1985 (1/7)	1986 (1/6)
1	IBM	IBM	IBM	IBM
2	Hewlett-Packard	Dow Jones	Coca-Cola	3M
3	Johnson & Johnson	Hewlett-Packard	Dow Jones	Dow Jones
4	Eastman Kodak	Merck	3M	Coca-Cola
5	Merck	Johnson & Johnson	Hewlett-Packard	Merck
6	AT&T	Time Inc.	Anheuser-Busch	Boeing
7	Digital Equipment	General Electric	Boeing	Rubbermaid
8	SmithKline Beckman	Anheuser-Busch	General Electric	Procter & Gamble
9	General Electric	Coca-Cola	Eastman Kodak	Exxon
10	General Mills	Boeing	Merck	J.P. Morgan
	1987 (1/19)	1988 (1/18)	1989 (1/30)	1990 (1/29)
1	Merck	Merck	Merck	Merck
2	Liz Claiborne	Rubbermaid	Rubbermaid	Philip Morris
3	Boeing	Dow Jones	3M	Rubbermaid
4	J.P. Morgan	Procter & Gamble	Philip Morris	Procter & Gamble
5	Rubbermaid	Liz Claiborne	Wal-Mart Stores	3M
6	Shell Oil*	3M	Exxon	PepsiCo^
7	IBM	Philip Morris	PepsiCo	Wal-Mart^
8	Johnson & Johnson	J.P. Morgan	Boeing	Coca-Cola
9	Dow Jones	RJR Nabisco	Herman Miller	Anheuser-Busch
10	Herman Miller	Wal-Mart Stores	Shell Oil*	Du Pont

Table 1 (continued)

	1991 (2/11)	1992 (2/10)	1993 (2/8)	1994 (2/7)
1	Merck	Merck	Merck	Rubbermaid
2	Rubbermaid	Rubbermaid	Rubbermaid	Home Depot
3	Procter & Gamble	Wal-Mart Stores	Wal-Mart Stores	Coca-Cola^
4	Wal-Mart Stores	Liz Claiborne	3M	Microsoft^
5	PepsiCo	Levi Strauss*	Coca-Cola	3M
6	Coca-Cola	Johnson & Johnson	Procter & Gamble	Walt Disney
7	3M	Coca-Cola	Levi Strauss*	Motorola
8	Johnson & Johnson	3M	Liz Claiborne	J.P. Morgan^
9	Boeing	PepsiCo	J.P. Morgan	Procter & Gamble^
10	Eli Lilly^	Procter & Gamble	Boeing	UPS*
10	Liz Claiborne^			
	1995 (3/6)	1996 (3/4)	1997 (3/3)	1998 (3/2)
1	Rubbermaid	Coca-Cola	Coca-Cola	General Electric
2	Microsoft	Procter & Gamble	Mirage Resorts	Microsoft
3	Coca-Cola	Rubbermaid	Merck	Coca-Cola
4	Motorola	Johnson & Johnson	UPS*	Intel
5	Home Depot	Intel	Microsoft	Hewlett-Packard
6	Intel	Merck	Johnson & Johnson	Southwest Airlines
7	Procter & Gamble	Microsoft^	Intel	Berkshire Hathaway
8	3M	Mirage Resorts^	Pfizer	Walt Disney
9	UPS*	Hewlett-Packard^^	Procter & Gamble	Johnson & Johnson
10	Hewlett-Packard	Motorola^^	Berkshire Hathaway	Merck

Table 1 (continued)

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

\*: shares not publicly traded

^: tie

Table 2 Daily Returns From Purchases n Days After Fortune's Publication Date

n	Fortune Portfolio		S&P 500 Portfolio		Diff-in-Means	
	Mean	Standard Deviation	Mean	Standard Deviation	Beta	P-value
0	0.000651	0.012720	0.000439	0.010557	1.07	0.0067
5	0.000666	0.012707	0.000437	0.010558	1.07	0.0035
10	0.000667	0.012700	0.000441	0.010560	1.07	0.0040
15	0.000668	0.012690	0.000440	0.010554	1.07	0.0037
20	0.000666	0.012657	0.000439	0.010554	1.07	0.0036

Table 3 Wealth Across Stocks For Different Horizons  
from First Trading Day of Each Survey Year

Year	Day	Portfolios	Fortune		S&P 500		Diff-in-Means
			Mean	Std. Dev.	Mean	Std.Dev.	P-Value
1	250	21	1.1651	0.2097	1.1027	0.1614	0.026
2	500	20	1.3869	0.4083	1.2184	0.2568	0.002
3	750	19	1.6681	0.5628	1.3700	0.3549	0.001
4	1000	18	2.0185	0.7652	1.5469	0.4494	0.000
5	1250	17	2.4187	0.9742	1.7461	0.5266	0.000



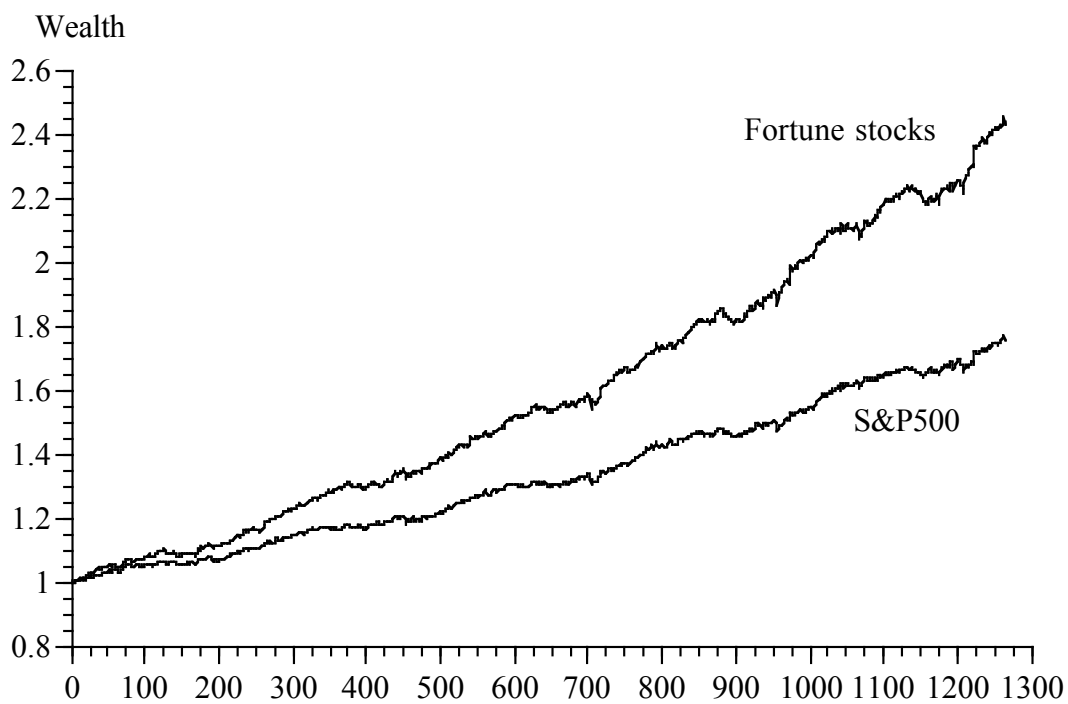


Figure 1 Wealth Across Stocks for Different Horizons

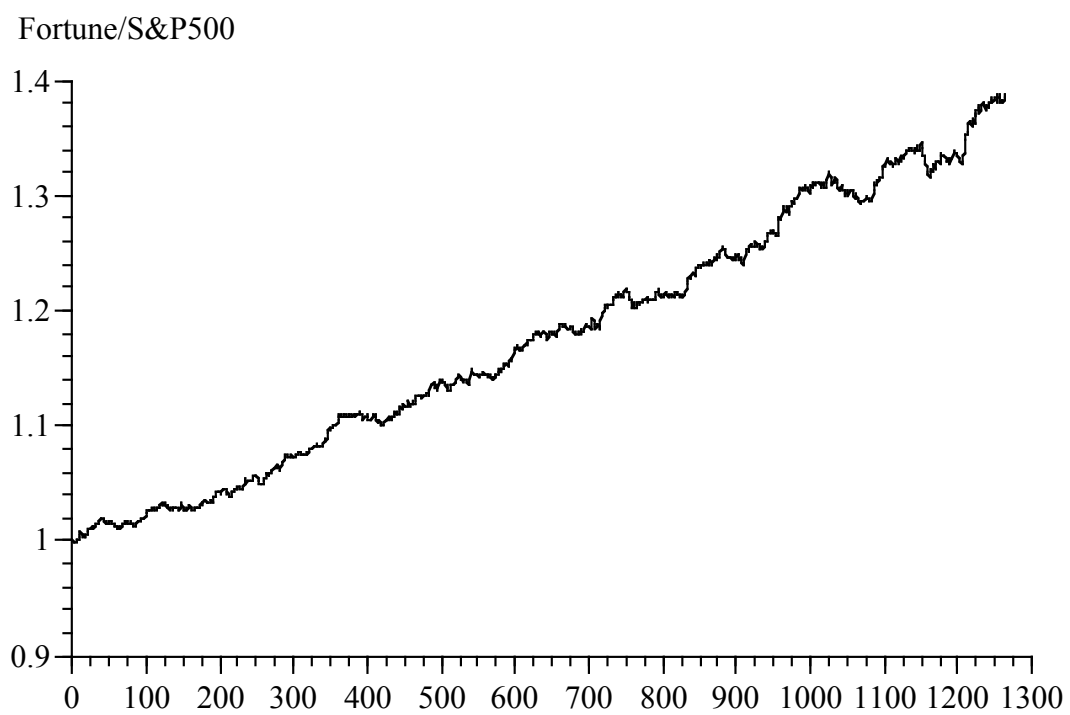


Figure 2 Relative Wealth Across Stocks for Different Horizons