

Searching for Rational Investors in a Perfect Storm: A Behavioral Perspective

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In October, 1991, there occurred off the coast of Massachusetts a “perfect storm,” a tempest created by a rare coincidence of events. In the late ’90s, there was another perfect storm, an also rare coincidence of forces which caused huge waves in our financial markets, as the NASDAQ index soared, collapsed, and bounced part way back.

What had happened to the so-called “rational” investors, the smart money, whom economists have for decades said, would keep market prices in close touch with the underlying values? Despite the hundreds of papers on markets and their efficiency, it is a remarkable fact that no scholar, not one, has looked to see who are these rational, i.e., value, investors, how they operate, and with what results.

I decided to see how a group of ten value funds, selected by a knowledgeable manager, performed in the turbulent boom–crash–rebound years of 1999–2003. Did they suffer the permanent loss of capital of so many who invested in the telecom, media and tech stocks? Did they, too, get caught up in the momentum-chasing frenzy of the day?

For most managers, mimicking the index, it was difficult not to own Enron, Oracle and the like, but these ten value funds had stayed far away. Looking closer, these ten managers have a quite distinct profile, inner-directed, confident of their investment philosophy and content to swim against the crowd. They owned highly selective portfolios, mostly 34 stocks or less, vs. the 160 in the average equity fund. Reflecting their consistent and disciplined approach, they turned their portfolios at one-sixth the rate of the average fund. Bottom line: every one of the ten outperformed the index over the five year period, and as a group they did so by an average of 11% per year, the financial equivalent of back-to-back no-hitters.

The article closes with a brief discussion of the distinctive temperament and attributes of this rare group of fund managers. As for those efficient market models, let the chips fall where they will.

In October 1991, there occurred off the coast of Massachusetts a “perfect storm,” a tempest created by a rare combination of events, primarily an Arctic cold front colliding with a hurricane, which would create waves 30 meters high and of course wreak havoc and death among the fishermen caught in its path.¹ In the late ’90s, there was another perfect storm, a rare coincidence of forces which created such turbulence in our financial markets that stock prices were distorted out of all relationship to their normal patterns. Like that nor’easter, there were huge costs to the innocents caught in its grip.

The speculative excesses of the ’90s threw a harsh light on efficient market theory (EMT), which for decades has been a cornerstone of economic theory and

scholarship.² No B-School student has escaped it; no economics professor has won tenure without paying his respects. EMT has also had significant impact on public policy and investment practices. It is, indeed, an appealingly simple idea, that in order to make money in the stock market one must compete against the “smart money,” the so-called rational investors, who are constantly scouring the market for opportunities. Because of them, all relevant new information is quickly captured by the market. No point in doing research oneself. Trust prices; the rational investors will already have erased most any discrepancy between price and value.³ Since you cannot beat the market, buy a diversified portfolio; say a Standard & Poor’s 500 index fund.

Obviously the theory was wrong—woefully so. In the late 1990s, stocks soared to levels out of all proportion to their underlying values, indeed to levels well beyond even the excesses of the 1920s.⁴ If the NASDAQ Composite Index, for example was right at 1200 in April 1997, it surely wasn’t right at 5000 in March 2000, and then right again at 1100 two years later. (The

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rise and then almost 50% decline of the broader based S&P 500, though widely noted, was also stunning.⁵⁾

Where were those rational investors during these tumultuous years? The Crash of October 1987 had little impact on Main Street America, but this time the damage was severe. At one point retirees, endowments, and the rest of us had lost \$8 trillion,⁶ and the collective loss is still about \$3 trillion.⁷ We need to see how this tsunami affected academic thinking. Have scholars looked to see what the rational investors, the cornerstone of their analyses, were doing during these tumultuous years? Was the smart money policing the markets, as the textbooks say? And if so, why then did the markets spin out of control? Perhaps these rational investors experienced the same huge losses as the rest of us. But if they somehow escaped, we should study the analytic tools, the investment philosophy, that enabled them to see through the speculative pyrotechnics that benumbed the rest of us.

Who are these “smart” investors, and how do they operate? Are they short-term traders? Are they simply better diversified than the rest of us?

This may not sound particularly brilliant, but there is little, if any, academic dissent from the proposition that, at the end of the day, the most efficient investment portfolio is fully diversified. Indeed, some scholars have suggested that for a variety of retirement plans, we consider making full diversification a requirement.⁸ A younger generation of economists has carefully scrutinized the various psychological and sociological biases that distort how investors make their decisions. Even this group, however, readily concedes that when attractive investment opportunities come to light, it is hard to believe they are not quickly exploited;⁹ investors should, therefore, thoroughly diversify.¹⁰ But is that how the smart money manage their portfolios or, conversely, do they focus on only a relative handful of carefully selected companies? *It would help to know.*

Particularly troubling is the assumption throughout the literature that the smart money—those who on Wall Street and in business schools, too, would be called “value investors”—are merely traders, focused on the very short term.¹¹ It is blithely assumed that value investors measure risk by the short-term volatility of a stock, and that having found a price discrepancy, seek to capture it before the underlying fundamentals change. Are value investors in fact fearful of holding a stock for the long term? *It would help to know.*

As the reader may have suspected, no one has looked. It’s a paradox; so much scholarly work premised on the role of rational investors, yet no one bothers to study them or seek them out. There is the occasional reference to Warren Buffett, but no close examination. One recent academic paper concluded that “financial economists have been generally unable to identify *any* reliably ‘smart’ investors.”¹² Gosh, perhaps they’ve been hiding. While there are casual sug-

gestions in the literature that the performance of value investors during these “obvious market frenzies” should be studied,¹³ no one has seriously done so.

So I decided to look for some. The conclusions are stunning. Yes, there really are rational investors out there. And no, during the remarkably turbulent five years, 1999–2003, they did not suffer the losses sustained by the rest of us. On the contrary, they beat the market averages by huge amounts. And they achieved those results by holding very undiversified portfolios, buying shares of a small number of companies. And whatever stocks they did buy, they were likely to hold for years to come.

The findings have big implications for every investor, armchair market savant, and day trader. And for academics, the results cry for further study.

A Simple Survey

To bring a group of rational/value investors out of the closet, I asked Bob Goldfarb, the highly regarded chief executive of the Sequoia Fund, to furnish the names of ten “true-blue” value funds, those which, as they say on the Street, don’t just talk the talk but walk the walk. (Had I prepared the list, I would have included Sequoia, but Goldfarb’s ten is Goldfarb’s ten.) They are all mutual funds, except for Source Capital, a closed-end fund which invests much like a mutual fund. The funds are as follows:¹⁴

Clipper Fund	Mutual Beacon
FPA Capital	Oak Value
First Eagle Global	Oakmark Select
Legg Mason Value	Source Capital
Longleaf Partners	Tweedy Brown Amer. Value

I wanted to see what they were doing in the five boom-and-crash years of 1999–2003—to see if, given the enormous pressures to follow the crowd as the market soared, they had stuck to their principles—and of course to see if they had escaped the ensuing debacle.

I have no sense that the managers of these funds talk to each other, except perhaps by reading what each other has been saying to shareholders, as reported in the value investors’ journal, *Outstanding Investor Digest*. (Usually they zealously protect their good ideas, except as disclosure is mandated.) But their intellectual roots, their common model, are derived from *Security Analysis*, by Ben Graham and David L. Dodd of Columbia, published just 70 years ago. References to that “bible” are sprinkled everywhere, and some of them openly describe their first encounter with Graham and Dodd as an epiphany.¹⁵ “[S]uddenly, investing made much more sense to me,” said Jean Marie Eveillard of First Eagle Global.¹⁵ Go to the Oak Value website

(www.oakvalue.com), for example, and the reader is soon greeted by the cover page of Graham's companion book, *The Intelligent Investor*. Typically, they search with exquisite care for a handful of companies whose intrinsic value—that is, the discounted present value of their future free cash flows—can be calculated with some degree of assurance. They're looking to buy pieces, i.e., shares, at a substantial discount from the value an intelligent buyer would pay for the business as a whole. That's it—price, value, and what Graham and Dodd said time and again, the “margin of safety” that allows for the inherent risk in estimating future cash flows and the proper discount rate.¹⁶ As Charles Munger, the vice-chairman of Berkshire Hathaway likes to say, if you're building a bridge intended for 10,000 ton trucks, you build it to carry 30,000 tons.

The Fortune 10 Test

The first test was quite simple. I looked to see if the funds had owned in the year 2000, when the market peaked, any of a group of very high profile stocks which the editors of *Fortune* had selected in an August 2000 article entitled “10 Stocks to Last the Decade.”¹⁷ The subhead read “Here's a buy-and-forget portfolio,” and the list represented the contributions of some “top stock pickers,” as well as due diligence by the staff of *Fortune*. The ten stocks were as follows:

Broadcom	Nokia
Charles Schwab	Nortel Networks
Enron	Oracle
Genentech	Univision
Morgan Stanley	Viacom

These ten stocks, which then had an aggregate market capitalization over \$1 trillion, represented the cream of the ballyhooed New Economy. They were not the small-cap stocks which, we know, crowd-following momentum investors might be prone to bid up to unsustainable prices. For investors looking for the “next GE,” the *Fortune 10* included some of the leading tech, media, and telecom stocks. They were the glory stocks of the fin-de-siecle bubble, and their high price/earnings ratios—only one under 50—reflected the faddishness of the age. *Fortune*, swallowing the popular perceptions whole, said they were ten stocks to let you “retire when ready.”

What are the risks in assuming that market prices are rational? By year-end 2002, these ten stocks had declined *on average* by 80% from the July 2000 prices quoted in the article.¹⁸ That is, they had suffered a loss of \$800 billion. Even after the market resurgence of 2003, the decline was still 50%. Investors who bought the list suffered what Graham called a permanent loss of capital, the sort that value investors obsessively try to avoid.¹⁹

None of the ten funds, which were managing in the year 2000 more than \$20 billion in all, had laid a glove on the *Fortune 10* stocks at any time during that year, with two interesting exceptions. Legg Mason Value owned Nokia, though the stock represented less than 2% of its portfolio when purchased in 1996. Since the stock was sold in mid-2000 at a gain of 1900%, it's hard to be too critical. And Mutual Beacon had *short* positions in Viacom and Nortel, as part of arbitrages, meaning that they had bet against the stocks. That's it. Didn't every fund own Enron back then? Sure. But not these guys.

Why the Funds Didn't Bite on the Fortune 10

At a time when most of us were enthusing about Cisco, Enron and the like, why were these value investors not joining the party? Their responses about why they were elsewhere are quite consistent, reflecting a willingness to make lonely judgments. Here are some samples:

- Clipper Fund: “inability to perform a rational valuation. . . . [F]or example, we did not buy Enron because we could not understand its financial statements.”²⁰
- FPA Capital: “ridiculous valuations”
- Oak Value: At Enron, faulty disclosure and we didn't like management. At Broadcom, Nortel, Nokia, and Oracle, we didn't like the industry and price-to-value.

The others mainly contented themselves with the traditional Graham-and-Dodd response that the price relative to value was not attractive.

While these verbal responses enjoyed the benefit of hindsight, their portfolio decisions at the time speak for themselves. As the year 2000 opened—the bubble did not peak until March—most of the funds were openly acknowledging to their shareholders that they were sorely out of step; on average, the group had way underperformed the market in 1999. Over a long period, a manager who trails the index is obviously not doing his job. And given the rapidity with which investors routinely cash out of cold funds and jump into hot ones, to underperform even in the short run is for many funds a serious matter, known in the trade as “tracking error.” One of our group managers facetiously described tracking error as “professional misconduct vaguely comparable to dealing drugs.”²¹

Even while agonizing over their tracking error, the fund managers were vigorously reaffirming their investment principles. Envy of the crowd never caused them to lower their standards. In its year-end 1999 report, Mutual Beacon summed it up as follows:

During 1999, we stuck “to our longstanding value and special situation approach. . . . [We] bought only when we saw substantial upside with relatively little risk. In our opinion, risk still matters.

Investors were telling Eveillard that value investing was dead; “you’re obsolete,” and they withdrew huge sums. His one-sentence response was classic: “I would rather lose half my shareholders than lose half my shareholders’ money.”²²

Old Economy Stocks Were Still Cheap in 1999

Although tech, media and telecom stocks soared in 1999, it remained a deeply bifurcated market, one in which many “old economy” stocks of traditional American companies could be bought at substantial discounts to intrinsic value. Indeed, though more stocks in the index were down than up that year, the soaring prices of stocks such as Cisco, Oracle, Intel and Yahoo, carried the S&P 500 21% higher. (It’s not widely understood, but because the S&P 500 is a dollar-weighted index, as a stock’s price rises, so too does its impact on the index.)

It might not have seemed a propitious time to buy any stocks; and Professor Robert Shiller, in his timely book, *Irrational Exuberance*, thought that even value stocks would be too risky.²³ For Graham-and-Dodders focusing on companies not markets, however, it was a time of great opportunity. The First Eagle Global presidents, sounding like a latter-day Graham and Dodd, said to investors in their report for the year ended March 31, 2000:

“For five years now, and particularly [the six months to mid-March 2000], smaller and medium-sized ‘value’ stocks have been neglected, ignored, and—in our opinion—mispriced by investors. . . . throughout the world.”

And while at the time it might have sounded like sour grapes to some, Longleaf Partners wrote to its investors that:

“The lackluster [performance, up 2.18% for 1999] should not overshadow the fact that 1999 was one of our best years from a buying perspective. . . . History has proven that over time stock prices, although volatile in the short-term, will converge with intrinsic business value.”

The Performance Test

The funds knew their model, and they were staying with it. And they were soon to be vindicated. The five years 1999–2003, one of the most volatile in history, make a fine test. Even after bottoming out in 2002 and

racking up a substantial rebound in 2003, the S&P 500 index showed *negative* average annual returns of 0.57%.²⁴ If the stock market were the random walk described by academics, one would expect that for our ten funds it would be a roll of the dice, a 50–50 outcome, with perhaps five performing better than the index and the other five worse. On average, they should have done about the same as the index, except of course for the drag on performance of the funds’ sometimes significant management fees.

But even allowing for hindsight, I found some things that pure chance, a random walk, cannot explain. The ten funds all beat the index, not just as a group, but each and every one of them did so. And on average, they beat the index by a stunning amount, what economists like to call a five-sigma event, meaning a statistical marvel that pure chance cannot explain. (For the lay reader, a perfect game in baseball is a random and rare event. Two such games back-to-back would be a freak—an occasion so rare it is outside the bounds of mathematical probability.) The ten funds showed positive average annual returns for those five years of 10.80%, or eleven percentage points *per year* better than the index. Not quite ten perfect games, but pretty close.

As one might expect, the average annual returns for the ten funds varied considerably, but even the least successful outperformed the index, and by a significant margin. The five-year 1999–2003 average annual returns were as follows:

Clipper	11.9%
FPA Capital	15.29
First Eagle Global.	17.02
Legg Mason Value	4.43
Longleaf Ptners	10.94
Mutual Beacon	10.28
Oak Value	2.63
Oakmark Select	15.43
Source Capital	15.22
Tweedy Br. Amer.	4.87

Average annual returns for the five years:

Group Average	10.80%
S&P 500 Index	–0.57%

Value funds are likely to outperform the index when the market is falling, or even treading water; the “tracking error” arises primarily in the years that stocks soar. The Clipper Fund, for example, suffered a loss of 2.0% in 1999, while the S&P 500 was rising 21%. Not surprisingly, Clipper suffered big redemptions. FPA Capital’s redemption experience was similar. Clipper’s senior manager, James Gipson, explained in his year-end 1999 letter to shareholders, “we concentrated on avoiding the (currently large)

potential for permanent loss of your capital.” In a prescient moment, he quoted John Kenneth Galbraith’s observation on the 1929 market peak, “the end was at hand but was not in sight.”

What’s the Model? Safety Lies in Careful Choices

In 1991, I wrote a book, *Sense and Nonsense in Corporate Finance*, in which I set out several criteria for selecting fund managers. The secrets haven’t changed. Funds should (a) hold no more than 20 stocks; (b) hold their stocks on average for at least two years; c) eat their own cooking, i.e., the managers should personally invest in the fund, and of course (d) invest on Graham-and-Dodd principles.²⁵ Goldfarb’s ten funds come quite close to these strict guidelines.

A limited number of stocks. The average domestic equity fund holds about 160 stocks,²⁶ suggesting a good reason for the common academic criticism that fund managers as a whole should not expect to outperform the market index. Owning half of all the outstanding shares, mutual funds as a group will inevitably mirror the index. And given their fee structures and substantial transaction costs, they must in fact do worse.

The ten funds in the study held at year-end 2003 only 54 stocks on average, barely one-third as many as the typical fund, and even that number is inflated by the geographically diverse, large foreign stock holdings of two of them, First Eagle Global and Mutual Beacon. Seven of the ten had 34 stocks or less. Contrary to the advice of financial economists, investment advisers, and stock market writers, value funds seem convinced that safety lies in careful selection, not random diversification.

The huge bonus of a concentrated portfolio is that you can buy a large amount of what you really like. Munger likes to say that when you find a really good opportunity, “don’t buy just a little, back up the truck.”²⁷ At calendar year-end 2003, the top five stocks in Legg Mason’s portfolio accounted for 34% of the total. Others with concentrated top-five holdings included Longleaf Partners—28%; Oakmark Select—40%. Thus value funds need only a few good ideas out of the roughly 2,000 stocks of sufficient size, that is, those with market capitalizations over \$1 billion. With so many choices, it’s easy, as our group of funds did, to steer clear of the red flags that were flying high at Enron.²⁸ Highly diversified funds needed a reason *not* to invest in Enron. Those in our group needed a reason *to* invest. This very different approach naturally led to different results.

So where does that leave indexing? It’s the obvious choice for the neoclassical economists who still believe in EMT, but its popularity doesn’t stop there. Shiller, for example, recommended indexing, so as to diversify away “all risks.”²⁹ To be sure, an investor

would have done worse than the index, if he had put all his eggs in the “buy-and-forget” *Fortune 10*. (Better to forget than buy.) And indexing does avoid the management fees and other costs that afflict most mutual funds. But timing really matters. Markets are efficient much of the time, they’re efficient in the long run, but they’re not efficient *all of the time*. As Ben Graham said, in a now celebrated passage:

The market is not a *weighing machine* ... [but rather] a *voting machine*, whereon countless individuals register choices which are the product partly of reason and partly of emotion.³⁰

Measured in real dollars, stocks did not return to their 1929 level until 1958, and did not return to their 1966 level until 1992.³¹ And indexers, far from escaping the *Fortune 10*, would have owned eight of them—all but the two foreign stocks, Nortel (which was in the index until sometime in 2001) and Nokia—and lots more like those eight.

An efficient market, as a popular finance textbook said, has no illusions;³² *buy the index*. Because the wisdom is already in the price, the EMT model thus has no predictive or analytic value. But then neither does the newer discipline of behavioral finance.³³ Its focus is on the mistakes of the investors who have been wrong, not the skills of those who are right. The behavioral patterns have been built up from studies of a handful of readily quantifiable errors, such as the fact that Royal Dutch and Shell Transport, which until recently owned fixed portions—60/40—in one combined enterprise, often trade in their respective markets at prices that diverge sharply from the underlying economic values.³⁴ Lacking the highly analytical, essentially judgmental tools of Graham-and-Dodd investors, their skills lie in hindsight analysis; hence they, too, fall back on indexing.

Neither of these popular academic models—EMT or behavioral finance—would have enabled one to do what the Goldfarb Ten did so successfully in the early days of 2000, that is, selectively pick up the good values in old economy stocks even while staying far, far away from the *Fortune 10* and the like.

These concentrated portfolios reflect the oft-repeated tenet amongst value funds that they invest “bottom-up,”³⁵ company by company, with an almost insouciant disregard for macroeconomic trends, and utter disdain for the market predictions of the day. It is often said that everything is difficult to predict—particularly the future. The value investor copes with this amorphous, unquantifiable macroeconomic uncertainty by focusing on what’s close at hand—a company’s products and market position, the quality of its management and their identification with shareholder interests, profit margins and balance sheets—rather than the prospects for global oil prices, war and peace, interest rate and currency fluctuations, and the like.

There is a note of humility—or is it humble arrogance?—as they remind investors of their insistence on staying within a narrow circle of their personal competence,³⁶ a phrase borrowed from Buffett. Bill Miller of Legg Mason Value likes to cite behavioral finance studies in commenting on market follies. And the scorn is palpable when he talks about the average portfolio manager's mistakes, such as trying to forecast macro-economic events, trading too much and, yes, owning too many stocks.³⁷

Low portfolio turnover. According to Morningstar, the average domestic equity fund held its stocks in 2003 for an average of ten months, equivalent to a turnover ratio of 121%, thus incurring huge though unstated trading costs and commissions.³⁸ Of course, at a fund that likes to “back up the truck” from time to time, the turnover will be far less. Our group had average turnover in 2003 of only 20%, meaning that they were holding their stocks on average for five years.

These turnover figures speak volumes. The difference between taking momentary fliers and selecting long-term buys is the difference, truly, between speculation and investing. It is a commonplace of academic wisdom that information is costly and difficult to come by, so that investors, having learned something new and valuable about a company, quickly “arbitrage”—buy or sell—the stock so as to capture the new value, as if there were some precise figure.³⁹ Those five-year average holding periods, however, tells us that the funds are not looking to capture small differences. Buffett put it succinctly, “You don’t try to buy businesses worth \$83 million for \$80 million.”

How costly could the information be? Anyone can discern the holdings on the Internet for free, and their portfolios don’t change that often. Oak Value’s website states flatly that in value investing there are neither difficult formulas nor inside or otherwise non public information. Martin Whitman of Third Avenue Value Fund, too, says that the fund doesn’t have superior information; “the trick” is to use the publicly available information in a superior manner.⁴⁰ Moreover, the funds’ staffs are not large. For the first ten years of its 20-year existence, FPA Capital was managed solely by Bob Rodriguez, and for the second ten by him and three associates. The two international First Eagle funds—over \$14 billion in all—are managed with just seven staff analysts. The information is easy (too easy) to come by. Using the information selectively, discriminating between the telling fact and the mind-numbing flow of daily statistics is the trick.

Implicit in their longer holding periods is the fact that value funds define risk as business risk—profit margins might shrink, the flow of new products might dry up—not the market fluctuation risk which still consumes so much scholarly attention.⁴¹ It is puzzling how much talent is wasted on this effort to measure, as

Friedrich von Hayek said in his Nobel Laureat address, what is measurable instead of what matters.⁴² Twenty years ago, when Buffett did a fund study similar to this one, he noted that the managers of the nine funds under his scope never bothered to calculate the *beta* of their holdings, the *beta* being the popular statistical risk measurement based on a stock’s short-term volatility.⁴³ Rodriguez explained this to some Wharton students and professors in 2004, saying that because of his fund’s tight investment concentration, he is able to define his investment time frame as three to five years. And thus he is “willing to accept greater portfolio volatility. ...”⁴⁴ Or as Whitman put it, “the only risk that we ever guard against is [business] risk. ... We absolutely *ignore* market risk.”⁴⁵ (Ital in original) They live comfortably with the market’s manic/depressive patterns; it’s the long-term results that matter.

Eating your own cooking. It is obvious that fund managers should invest significant dollars of their own in their funds, so as to align their personal interests with their investors’. And it’s become even more obvious as the pervasive market-timing, late-trading and other abuses at mutual funds have come to light. But it’s not just the blatant conflicts of interest that are troublesome. Management fee structures are out of line with their actual costs; according to Jack Bogle, founder of the Vanguard Group, mutual fund management fees total \$72 billion, of which less than 10% is spent on research.⁴⁶ Agency costs are what economists call the range of temptations for someone entrusted with other people’s money. It’s an inherent problem, but one that has gotten worse. Some fund families, such as Alliance, conceive of themselves as financial supermarkets for the masses, dicing their funds into ever smaller cubes, so as to harvest more investor dollars.⁴⁷ The sense of a fiduciary duty has dried up. I can recall a discussion some while back with the senior manager of a large, brokerage firm family of funds, in which he said, quite candidly, he was not trying to achieve particularly good results, just not to look bad, just to stay with the crowd, no matter what the values. It’s the fear of that damn tracking error, again.

A number of the ten funds have made a point of commenting on their partners’ personal investments in the funds they manage—the ones I caught were Longleaf, Clipper, First Eagle, Oakmark Select, FPA Capital, and Tweedy Browne. One would think all mutual fund managers would do the same, but think again.

Several managers in our group have passed a further test of fiduciary duty, having closed their funds to new investors, rather than dilute the results for those already there. No manager bent on gathering assets would do that. Oakmark Select, Longleaf Partners and FPA Capital are closed now,⁴⁸ and First Eagle Global has been closed in the past. Longleaf Partners has also closed its

other funds, as has First Eagle its fund that is solely foreign.

Size impairs the object; it shrinks the number of companies with market capitalizations large enough to permit a fund to amass a significant position. It's not how much money you manage but how you succeed with what's there. Our select group seems to have latched onto that precept.

Graham and Dodd: Theme and variations. The philosophy of these Graham-and-Dodd, value investors reflects some of the same insights that underlie behavioral finance. Graham, for example, recognized that subjective factors and market prices influence not just speculators but also those committed to a purely investment program. A couple of excerpts may capture the distinctive spirit of it:

One of your [business] partners, named Mr. Market, is very obliging, indeed. Every day he tells you what he thinks your interest is worth and ... offers either to buy you out to sell you an additional interest on that basis. ... Often ... Mr. Market lets his enthusiasm or his fears run away with him, and the value he proposes seems ... little short of silly.⁴⁹

The margin of safety is the central concept of investment. A true margin of safety is one that can be demonstrated by figures, by persuasive reasoning, and by reference to a body of actual experience.⁴⁹

While their philosophy is similar, the funds in our group apply it in quite different ways. (Buffett came to the same conclusion in looking at his group of nine value funds twenty years ago.) Some focus on small and mid-cap stocks, others invest in large-cap stocks. One of the group follows a highly quantitative approach, which closely echoes the techniques used by Graham. On the other hand, one of the funds seeks out growth companies, at reasonable, if not cheap, prices, then staying with them over time. Several of the funds look for value overseas as well as in the U.S. Another buys deep discount debt and does risk arbitrage.

There are thus many roads to heaven—many more than the easy quantitative tests, such as a low price/earnings ratio, that financial economists simplistically equate with value investing. For example, a company's price/earnings ratio may indeed be attractive, but the quality of the earnings—meaning the free cash flows available to pay dividends, expand the business, and the like—might be poor. Or it might have, say, a strong balance sheet, perhaps even net current assets per share in excess of the stock price, but then again management gives signs of squandering resources on ill-conceived acquisitions. The qualitative, judgmental aspects of how value funds operate constitute huge obstacles for the mathematical modeling so favored by economists.

(One suspects that few economists are comfortable reading and analyzing financial statements.)

Some years ago, Bill Ruane of the Sequoia Fund ventured a guess that value investing accounted for about 5% of all professionally managed money. Given the growth of privately run hedge funds, Rodriguez thought that the 5% figure was still about right. Whatever the precise figure, it simply takes too much analytic effort, discipline and independence of spirit to appeal to more than a handful. Why would such uncommon results ever be common? While their techniques vary, however, the group of ten all stand on the common ground of patient, company by company analysis, always mindful that the stocks they are buying are part interests in a business.

Value Investing: A Behavioral Finance Perspective

The younger, behavioral finance academics have convincingly demonstrated that perverse psychological and social factors often distort the pricing efficiency of our markets. (The studies of herding, momentum investing, and the like are familiar to the reader.⁵⁰) And yet it happens with distressing frequency and impact. What we have seen here strongly suggests that those rational investors on whom the efficient market model relies are not remotely up to the task. Let me briefly summarize:

- not only do value investors account for but a small part of the market, but there are some almost perverse factors keeping them small. When value investing is in vogue, and prices are high, they are tempted to close a fund ("or two, or three ..." as First Eagle recently intimated) to new investors, and when they are sorely out of step with the prevailing mood, as happened in the late '90s, they seem content to see their pool of assets shrink, rather than abandon their principles.
- for stocks that are priced too low—ah, now we're talking, but only if the market price is at a deep discount to the intrinsic value. This group is very, very picky. Think of Ted Williams waiting for a pitch he can hit on the sweet spot. When economists speak of arbitraging price differentials, they are often referring to modest discounts that would not remotely tempt investors who have been disciplined to buy only when it's a very fat pitch. It's that margin of safety.
- ultimately, the problem is the snail's pace of their trading, only about one-sixth that of the average mutual fund. What the economic model requires is red-blooded activists, and these patient value investors think long-term, thus operating at an altogether different tempo.

Apart from throwing cold water on EMT, we have also addressed two gaps in the behavioral finance literature: (a) the failure to look at the performance and profile of those rational investors who, in some ghostly fashion, populate the academic models; and (b) the failure to observe *directly* particular investors and their behavioral patterns, rational or otherwise. The economists' focus has been on markets, with no effort to converse with, say, fund managers, listen to them, individually. Polling large groups is not the same. A one-by-one study is what was attempted here, and it was only by doing so that their commonality could be confirmed. Buffett, as noted, did a similar study on the 50th anniversary of the publication of Graham and Dodd's "*Security Analysis*." But that's it.

The economic literature is also far more attuned to cases of overpricing in the market—irrational exuberance—than to the sometimes egregious periods of underpricing. Manic, not depressed, markets are what excite scholars. Value investors, on the other hand, tune out fairly quickly when prices soar; it is the opportunity to buy good companies at sale prices that stirs their juices. In the late 1970s, Buffett and other Graham-and-Dodders were salivating over the bargains in the market. I don't believe the academic community could grasp their enthusiasm.

What truly defines the Goldfarb Ten is their rare comfort with making lonely, out-of-step decisions. They are inner directed, willing to rely on patient, time-consuming analyses of business value, confident that whatever fads and fashions might then be afoot in the market will provide the handful of opportunities they need and the margin of safety on which they rely. Almost everyone else, scholars, rating services and managers alike, measures investment risk by looking at the price volatility of a stock, numbers which are available at the click of a mouse. Not so these managers, whose long investment horizons require that risk be measured by examining a company's market share, vulnerability to new competition, financial strength and other highly qualitative, judgmental factors. True, sometimes there are no attractive opportunities, but still they hold to their convictions. During 2003, several of them, rather than doing "something dumb," as one said, kept 20–30% of their funds in cash. (To the question, "What did you do at the office today, honey?" the answer is often "nothing.")

Value managers knew enough, and had the personal strength, to steer clear of Enron and the like, despite being sorely punished as their investors cashed out. Having a keen sense for market history and foibles surely helped. Eveillard's previously quoted response to the French bank that owned the First Eagle management company in early 2000 and was pressuring him to go with the market flow, says it all: "I would rather lose half my shareholders than lose half my shareholders' money."⁵¹ In a profession not usually noted for such virtues, we've observed a group that demonstrated, un-

der exquisitely trying circumstances, a keen sense of fiduciary duty and integrity. (Why else close off a successful fund to new investors?) My sense is that these qualities define their sense of self. It is bottomed, of course, on their confidence, born of experience, that while they may for periods be out of step with the market, they will be vindicated *over time*.

The ultimate point of this paper is to encourage a fresh, broader inquiry. Jim Gipson of the Clipper Fund commented, not without a tinge of regret, that "[i]ntelligence is a necessary condition for success in this business, but it is not a sufficient one."⁵² Patience, investment philosophy, temperament—these do not lend themselves to the algebraic formulae and computer models that are so popular in the academy.

Take a look. Why are true-blue value funds so few in number? It may simply be too painful to swim against the crowd. To what extent do value investors outperform the market over longer periods of time than the five years we studied? Obviously it's not by 11% per annum. Is there any feasible means by which society could reduce the costly, wasteful short-termism that afflicts and distracts the market or has the proliferation of derivatives (and the ubiquitous CNBC!) rendered that an idle thought? And, for an intriguing behavioral puzzle, why have economists talked so often about rational investors but not bothered to study this readily defined, intellectually astute, successful group?

The Scope of This Study

No one study is complete. The Goldfarb Ten were, of course, selected after the "event," after the five years covered by the study. Ideally, one would openly pick ten funds beforehand, then wait to see the results. I believe that no scholar, whatever their views, has done that. (Tenure decisions won't wait.) As I approach my 80th birthday, I am one of the less likely candidates. These ten funds were not, however, a random selection, chosen out of thousands simply because they had performed well. When Buffett looked at nine such value funds, in 1984, on the 20th anniversary of the publication of Graham and Dodd, he recognized this same hindsight argument.⁵³ But like the Buffett Nine, the Goldfarb Ten explicitly confirmed, as Buffett put it, their "framework for investment decision-making" *ex ante*. They did so under the most exquisite circumstances, back in 1999 and 2000, when their funds were hemorrhaging cash as investors fled. And then they stayed the course.

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Notes

1. Sebastian Junger, "The Perfect Storm," 130 (Harper Paperback 1998).
2. See, e.g., Paul A. Samuelson, *Proof That Properly Anticipated Prices Fluctuate Randomly*, 6 *Indus Mgmt Rev.* 41, 48 (1965); Eugene Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 *J. Fin.* 383, 392 (1970).
3. For an overview of the literature and cogent dissent from EMT, see Lynn A. Stout, *The Mechanisms of Market Inefficiency: An Introduction to the New Finance*, 28 *J. Corp. Law* (2003) 636.
4. Robert J. Shiller, *Irrational Exuberance* (2000) ("Irrational") 5–12; see generally Roger Lowenstein, *Origins of the Crash* (Penguin 2004) ("Origins").
5. Robert E. Rubin, "In an Uncertain World," (Random House Trade Paperback 2004), 330.
6. *Ibid.*
7. See this author's "A Perfect Storm: Changing a Culture," Swedish Corp. Gov. Forum, Dec. 2003.
8. Ronald J. Gilson & Reinier Kraakman, *The Mechanisms of Market Efficiency Twenty Years Later: The Hindsight Bias*, 28 *J. Corp. Law* (2003) ("MOME") 715, 739 (and papers cited).
9. Nicholas Barberis & Richard Thaler, *A Survey of Behavioral Finance*, in *Handbook of the Economics of Finance* (Geo. Constantinides, Milt Harris & Rene Stolz eds., 2003) ["Survey"] 1051, 1055.
10. "Irrational," *supra*, at 215, 231; Fox, *Is the Market Rational?* *Fortune* Dec. 9, 2002, 116, 126 (Shiller and Thaler advise investors to diversify completely); cf. Choper, Coffee, & Gilson, "Cases and Materials on Corporations" 6th ed. (Aspen 2004) 191.
11. See, e.g., Charles M.C. Lee, Andrei Shleifer, & Richard H. Thaler, *Investor Sentiment and the Closed-End Fund Puzzle*, 46 *J. Finance* (1991) 75, 80–81 and materials cited.
12. Alon Brav & J.B. Heaton, *Market Indeterminacy*, *J. Corp. Law* (2003) 517, 534 (n.66) (ital in original).
13. See, e.g., MOME, *supra*, at 737–9.
14. Robert Rodriguez, *Discipline* (Wharton School speech, Feb. 23, 2004) ("Discipline"), 2; see also Warren E. Buffett, *The Superinvestors of Graham & Doddsville*, 11 *Hermes* (Columbia Bus. School, Fall 1984).
15. Ian McDonald, "Veteran Value Manager Took a Big Risk by Playing His Investments Safe," *Wall St. J. Quarterly Mut. Fund Rev.*, Oct. 4, 2004, pp. ??? [third reprint page] ("McDonald").
16. See, e.g., First Eagle Funds Prospectus, March 1, 2004, at 3; Longleaf Partners Fund Annual Report, Dec. 31, 1999, at 11. Buffett reminds investors in each annual report that while intrinsic value can be defined simply—it's the discounted free cash flows—the calculation is anything but simple. Berkshire Hathaway 2003 Annual Report, 73.
17. David Rynecki, *10 Stocks to Last the Decade*, *Fortune*, Aug. 14, 2000, 114.
18. *Origins*, *supra*, at 166.
19. Clipper Fund, annual report, Dec. 31, 2003, at 2.
20. *Ibid.*
21. McDonald, *supra*, at page [3].
22. Irrational, *supra*, at 245.
23. The Morgan Stanley Capital International index, which is a relevant yardstick for First Eagle Global and Mutual Beacon, showed negative average annual returns of 0.77%, almost precisely the showing of the S&P 500.
24. *Sense & Nonsense in Corporate Finance* (Addison-Wesley, 1991) 234–8.
25. Paul J. Lim, "Investors Do Not Try This At Home," *NY Times*, March 14, 2004, Sec. 3, p.1, col. 2 (169 stocks in average domestic stock fund).
26. Rodriguez, *Discipline*, *supra*, at 4.
27. See Marianne M. Jennings, "A Primer on Enron: Lessons from A Perfect Storm of Financial Reporting, Corporate Governance and Ethical Culture Failures," 39 *Cal. West. Law Rev.* (2003) 163, 176 (company burning through cash, very low returns on equity, etc.); see also Anthony H. Catanach, Jr. & Shelley Rhoades-Catanach, *Enron: A Financial Reporting Failure*, 48 *Vill. L. Rev.* 1057.
28. Irrational, *supra*, at 215, 231.
29. Benjamin Graham and David L. Dodd, *Security Analysis* (1st ed. 1934), 23.
30. Irrational, *supra*, at 9–12.
31. Brealey & Myers, *Principles of Corporate Finance* (6th ed. 2000) 372.
32. Stout, *Mechanisms*, *supra*, at 664; Brav & Heaton, *supra*, at 518–9.
33. Survey, *supra*, at 1059–61.
34. See, e.g., *Discipline*, *supra*, at 5.
35. James Gipson, *Outstanding Inv. Digest* ("Outstanding"), April 30, 2004, at 46 (responding to an investor query about currency plays); see also Seth A. Klarman, *Baupost* 2003 Year end Letter, Jan. 23, 2004, @12 (Baupost is a value-oriented hedge fund); Berkshire Hathaway 2003 Annual Report, @21 (when there's nothing exciting in which to invest, our "default" position is U.S. Treasuries.)
36. Legg Mason Value Trust, 2003 Annual Report, May 5, 2003, at 6, 14.
37. Invisible Fund Expenses, *Consumer Reports* May 2004, at 35 (many funds incur charges for buying and selling that double their stated expense ratio).
38. See, e.g., MOME, *supra*; "Hedge Funds: From alpha to omega," *The Economist*, July 17, 2004, p. 69 (hedge funds trade heavily to arbitrage between markets or individual securities).
39. *Outstanding*, *supra*, at 15.
40. Burton Malkiel, "The Efficient Market Hypothesis and Its Critics," 17 *J. Econ. Perspectives* 59, 60; Andre F. Perold, "The Capital Asset Pricing Model," 18 *J. Econ. Perspectives* (2004) 3; Eugene F. Fama & Kenneth R. French, "The Capital Asset Pricing Model," *Id.* at 25.
41. Cited in Lowenstein, *Sense & Nonsense in Corporate Finance* (1991) 206–7.
42. Buffett, *Superinvestors*, *supra*, at 13–4.
43. *Discipline*, *supra*, at 3–4.
44. *Outstanding*, *supra*, at 16.
45. "Mutual Funds: The 'Other' Big Scandal," *Consumer Reports*, March 2004, at 12.
46. Roger Lowenstein, "Unconventional Wisdom: The Wrong Diagnosis," *Smart Money*, March 2004, at 50, 51.
47. Subsequent to the date of this paper, Oakmark Select reopened.
48. Benjamin Graham, *The Intelligent Investor* (Harper 1973, 4th rev. ed.) 108.
49. *Id.* at 277, 283.
50. It's curious that the stock market is the rare place where a rising price makes an object more attractive to many buyers.
51. McDonald, *supra* n. 16.
52. Letter to this author dated Sept. 15, 2004.
53. Buffett, *supra*, n. 15, at 13.

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