Challenge to judgment

Perhaps there really are *managers who can outperform the market consistently – logic would suggest that they exist. But they are remarkably well-hidden.*

Paul A. Samuelson

Once upon a time there was one world of investment — the world of *practical* operators in the stock and bond markets. Now there are two worlds — the same old practical world, and the new world of the academics with their mathematical stochastic processes.

These worlds are still light-years apart: as far apart as the distance from New York to Cambridge; or, exaggerating a bit, as far apart as the vast width of the Charles River between the Harvard Business School and the Harvard Yard. Perhaps there has been in recent years some discernible rate of convergence between these disparate worlds. In any case, I would expect the future to show some further approach between them.

Indeed, to reveal my bias, the ball is in the court of the practical men: it is the turn of the Mountain to take a first step toward the theoretical Mohammed.

CAN ANYONE PERFORM?

Let me explain. If you oversimplify the debate, it can be put in the form of the question,

> Resolved, that the best of money managers cannot be demonstrated to be able to deliver the goods of superior portfolio-selection performance.

Any jury that reviews the evidence, and there is a great deal of relevant evidence, must at least come out with the Scottish verdict:

> Superior investment performance is unproved.

Let me not be misunderstood. The Morgan Bank people did do better in certain years than the average mutual fund. That is not in doubt. Nor is it denied that the T. Rowe Price organization achieved greater increments of wealth in certain years than did many other organizations. And both of these may well turn out to perform better than the market as a whole in the future. Yet, recall that there were years when the Dreyfus Fund, or the Enterprise Fund, or Fidelity Funds seemed greatly to outperform the mob. And there were other years when they didn't.

What is at issue is not whether, as a matter of logic or brute fact, *there could exist a subset of the decision makers in the market capable of doing better than the averages on a repeatable, sustainable basis.* There is nothing in the mathematics of random walks or Brownian movements that (a) *proves* this to be impossible, or (b) *postulates* that it is in fact impossible.

The crucial point is that when investigators — like Irwin Friend, William Sharpe, Jack Treynor, James Lorie, Fischer Black, and Myron Scholes, or any Foundation treasurer of fair-minded and serious intent — look to identify those minority groups or methods endowed with sustainable superior investment prowess, they are quite unable to find them. The only honest conclusion is to agree that a loose version of the "efficient market" or "random walk" hypothesis accords with the facts of life. This truth, be it emphasized, is a truth about New York (and Chicago, and Omaha); and it is *as* true in New York as in Cambridge.

DEADWEIGHT TRANSACTION COSTS

This does not say that many people, or even most people, are not capable of frittering away the funds given them. To lose money, all you have to do is flip a coin, buying GM on heads and selling it on tails. That way you'll do worse than the averages, and worse even than holding GM or avoiding it. The money you lose — and the odds are overwhelmingly against you — will go to lower the losses of your hard-pressed broker. Similarly, the transaction vol-

ume generated by the non-random decisions of the vast majority of the big and small investors, who all *think* they have "flair" but do not demonstrably have it, serves only to suck economic resources out of useful GNP activities like osteopathy and rock singing into broker solicitations and bookkeeping.

This is not a condemnation of market activity: even if eight out of ten transactions are wasteful, who is to say which are the two that are not! It is, however, a useful hint to most pension and trust managers that their clients would in all likelihood be ahead if their turnover rates were halved and their portfolios were more broadly diversified. They also serve who only sit and hold; but I suppose the fees to be earned by such sensible and prosaic behavior are less than from essaying to give it that old post-college try.

EQUALITY OF AVERAGE AND ALL

What logic can demonstrate is that not everybody, nor even the average person, can do better than the comprehensive market averages. That would contradict the tautology that the whole is the sum of its parts.

What statistics can suggest is this: If you select at random a list of, say, 100 stocks and buy them *with weights proportional to their respective total outstanding market values*, although your sample's performance will not *exactly* duplicate that of a comprehensive market average, it will come close to doing so — closer than if you throw a dart at only one stock, but of course not quite as close as with a sample of 200, 300, or all the stocks available in the marketplace.

EUTHANASIA OF PERFORMERS

Do I really believe what I have been saying? I would like to believe otherwise. But a respect for evidence compels me to incline toward the hypothesis that most portfolio decision makers should go out of business — take up plumbing, teach Greek, or help produce the annual GNP by serving as corporate executives. Even if this advice to drop dead is good advice, it obviously is not counsel that will be eagerly followed. Few people will commit suicide without a push. And fewer still will pay good money to be told to do what it is against human nature and self-interest to do.

Emerson said that the world would beat a path to the door of the person who invented a better mousetrap. That showed what he knew about economics. Wells Fargo set out a trial balloon in the way of a sensible non-managed fund that embodied essentially the whole market. Batterymarch has done likewise. One of the American Express funds also experimented with such an outlet for pension fund money. The story is not yet over, but one is left with the impression that much underbrush has been growing up before the doors of these deviants into good sense.

At the least, some large foundation should set up an in-house portfolio that tracks the S & P 500 Index — if only for the purpose of setting up a naive model against which their in-house gunslingers can measure their prowess. Instead, most portfolio committees bolster their self-esteem by showing that they have done better than the Value Line 1500 Index. And no wonder: that being a geometric-mean index, I can outperform it merely by buying *its* stocks in its proportions; and can do so both in down markets and up markets — since money is only sophisticated enough to grow arithmetically, dollar on top of (algebraic!) dollar.

Perhaps CREF, which pioneered the variable annuity and the variable pension plan, can be induced to set up a pilot-plant operation of an unmanaged diversified fund, but I would not bet on it. I have suggested to my colleague, Franco Modigliani, who presumably will be President of the American Economic Association in 1976 (if there is a 1976), that economists might want to put their money where their darts are: the AEA might contemplate setting up for its members a no-load, no-management-fee, virtually no transaction-turnover fund along Sharpe-Mossin-Lintner lines. But there may be less supernumerary wealth to be found among 20,000 economists than among 20,000 chiropractors. For as Shaw should have said: "Those who have, don't know; those who know, don't have."

TEST OF PUDDINGS

How does one judge the validity of what I have been asserting? Certainly we don't want to replace old dogmas about "selectivity in search for quality" with new dogmas, however scientific their nomenclature. The sad truth is that it is precisely those who disagree most with the hypothesis of efficient market pricing of stocks, those who pooh-pooh beta analysis and all that, who *are least able to understand the analysis needed to test that hypothesis.*

First, they simply assert that it stands to common sense that greater effort to get facts and greater acumen in analyzing those facts will pay off in better performance somehow measured. (By this logic, the cure for cancer must have been found by 1955.)

Second, they always claim they know a man, a bank, or a fund that does do better. Alas, anecdotes are not science. And once Wharton School dissertations seek to quantify the performers, these have a tendency to evaporate into the air — or, at least, into

statistically insignificant "t" statistics.

SUMMING UP

It is not ordained in heaven, or by the second law of thermodynamics, that a small group of intelligent and informed investors cannot systematically achieve higher mean portfolio gains with lower average variabilities. People differ in their heights, pulchritude, and acidity. Why not in their P.Q. or performance quotient? Any Sheik with a billion dollars has every incentive to track down organizations with such high P.Q. (But, paradoxically, it takes P.Q. to identify P.Q., so it is not easy to get off the ground.)

Anyone with special abilities earns a differential return on that flair, which we economists call a rent. Those few with extraordinary P.Q. will not give away such rent to the Ford Foundation or to the local bank trust department. They have too high an I.Q. for that. Like any race track tout, they will share it for a price with those well-heeled people who can most benefit from it.

It is a mistake, though, to think that *so much money* will follow the advice of the best talents *inevitably, as a matter of the logic of competitive arbitrage alone,* to leave everyone else facing a "white noise" random-dart situation, in which every security of the same expected variability has the same expected mean return. From the nature of the case, there must always be a measure of uncertainty and of doubt concerning how much of one's money one can entrust to an adviser suspected of having exceptional P.Q. Many academic economists fall implicitly into confusion on this point. They think that the truth of the efficient market or random walk (or, more precisely, fair-martingale) hypothesis is established by logical tautology or by the same empirical certainty as the proposition that nickels sell for less than dimes.

The nearest thing to a deductive proof of a theorem suggestive of the fair-game hypothesis is that provided in my two articles on why properly anticipated speculative prices do vibrate randomly.* But of course, the weasel words "properly anticipated" provide the gasoline that drives the tautology to its conclusion. As I pointed out at the conclusion of the second cited article, any subset in the market which has a better ex ante knowledge of the stochastic process that stocks will follow in the future is in effect possessed of a "Maxwell's Demon" who tells him how to make capital gains from his effective peek into tomorrow's financial page reports. To be sure those possessed of such special competence must stay a subset of the market; if they become big enough to dominate the process of present stock price formation, that will falsify the presumption that they are still possessed of differential, undiscounted, ex ante valuable knowledge.

What is interesting is the empirical fact that it is virtually impossible for academic researchers with access to the published records to identify any member of the subset with flair. This fact, though not an inevitable law, is a brute fact. The ball, as I have already noted, is in the court of those who doubt the random walk hypothesis. They can dispose of the uncomfortable brute fact in the only way that any fact is disposed of — by producing brute evidence to the contrary.

* P. A. Samuelson, "Proof That Properly Anticipated Prices Fluctuate Randomly," *Industrial Management Review* (now *Sloan Management Review*), 1965, 6, 41-49; reproduced as Chapter 198 in Samuelson, *Collected Scientific Papers, Volume III,* Cambridge, M.I.T. Press, 1967. See also my "Proof That Properly Discounted Present Values of Assets Vibrate Randomly," *Bell Journal of Economics and Management Science,* Autumn 1973, 4, 369-374.