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Reading the Index to Beat the Index

By HOWARD ISENSTEIN

INDEX funds mirror the market, and they appeal to investors who realize that most fund managers do not beat the market for extended periods. But by tweaking the mathematical approach taken by index funds, Dimensional Fund Advisors has often been able to beat them.

The company, based in Santa Monica, Calif., is known in the academic world and among professionals - those who manage assets for pension funds and other big institutions - for its canny trading, sophisticated use of computer modeling and an emphasis on small-cap stocks.

But DFA, as it is often called, is hardly a household word among individual investors, largely because the company requires minimum investments of \$2 million for many of its funds. (DFA funds are also available without such requirements through some 401(k) plans, and at minimums of \$100,000 to \$200,000 through some financial advisers.)

The company was founded in 1981 in the spare bedroom of David G. Booth, now the chief executive and co-chairman. According to John C. Siciliano, the company's director of global institutional services, it manages \$39 billion for pension funds, like those of the [Boeing](#) Company and the states of Utah and Missouri, along with 39 mutual funds.

Mr. Booth and Rex A. Siquedfield, the other co-founder and co-chairman, together own half of the company. Employees and board members own an additional 22 percent, and 28 individual investors own the remainder. Among them is Gov. Arnold Schwarzenegger of California. Mr. Siciliano said that Mr. Schwarzenegger was an "outside investor" with less than 5 percent ownership of the company. "Our outside investors are strictly investors and do not have a role in the management or strategy of the company," he said.

A spokesman for Mr. Schwarzenegger declined to comment.

Both Mr. Siquedfield and Mr. Booth graduated from the University of Chicago with M.B.A.'s, and their company's investing approach has been heavily influenced by the theories of academics, some of whom are consultants or part-owners of the company. These include Eugene F. Fama, a finance professor at the University of Chicago; Kenneth French, a finance professor at Dartmouth; and Robert C. Merton, a Nobel laureate in economics and a professor at Harvard Business School.

Professor Fama, who owns less than 5 percent of the firm, is its director of research, while Professor French is director of investment strategy. (Professor Fama has served as an economic adviser to Mr. Schwarzenegger, said Paul Wachter, Mr. Schwarzenegger's personal financial adviser.)

DFA uses 24 criteria to weed out stocks that it expects to underperform in a given asset class or are not germane to it, Mr. Siciliano said. For example, the firm considers only companies that have been

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audited by a major accounting firm, that are profitable and that do not face any material litigation. It excludes initial public offerings and real estate investment trusts (except for inclusion in its real estate fund), and stocks for which a majority of shares are not traded publicly.

In the small-cap universe, which has about 5,000 stocks, the screens would leave about 3,500, Mr. Siciliano said. The company uses its own stock and market analysis to form portfolios, which resemble the underlying universe of screened stocks but do not necessarily mirror it precisely.

PURE index funds adhere scrupulously to the weighting of the stocks and bonds in an underlying index. But when DFA's fund managers decide that it is time to buy or sell a security, they often wait for a few days or weeks to get better prices.

"We get shown about 1,000 blocks" of stocks a day, Mr. Siciliano said. "We may do 5 or 20" block orders, he added, "and look for a transaction that's below the bid," or lowest price generally offered. Because the firm is a very large trader in the small-cap arena, it often succeeds, Mr. Siciliano said, adding that 40 percent of its small-cap trades were done at a discount to the market price.

The ability to screen stocks with sophisticated mathematical techniques and to buy below the bid are among the firm's competitive advantages, and they have been exemplified in the DFA U.S. Micro Cap Portfolio, the firm's first mutual fund. According to a DFA-financed study by Donald B. Keim, a DFA consultant and a professor at the Wharton School of the University of Pennsylvania, the Micro Cap Portfolio has outperformed its closest benchmark, an obscure index known as the CRSP 9-10, by 2.92 percentage points, annualized, since its inception in 1982.

DFA's funds have generally fared well in recent years. Its Micro Cap Portfolio, for example, gained 16.8 percent in the last quarter and 60.7 percent in 2003, placing it in the top 6 percent of funds in its category for the year, according to Morningstar. In the five years through 2003, it returned 16.4 percent, annualized. Its U.S. Small Cap Value fund gained 20.7 percent in the quarter and 59.4 percent for 2003, to finish in the top 13 percent of funds in its category for the year. In the five years through 2003, it returned 16.9 percent, annualized.

DFA keeps fees relatively low. They average 0.49 percent of assets, well above the 0.26 percent average at Vanguard but far below the average of 1.44 percent for all mutual funds, according to Morningstar.

Paul Herbert, who covers DFA for Morningstar, said it had "a good reputation in the financial planning and institutional communities," because of its specific style, low costs and good performance.

Jeremy J. Siegel, a finance professor at the Wharton School at the University of Pennsylvania, has a similar view. "It's a very disciplined group" in terms of maintaining investment objectives and analyzing small-cap stocks, he said.

The firm's emphasis on small-cap stocks has not always produced good returns. From 1996 through 1999, for example, a time when growth stocks were sizzling, the small-cap value fund trailed the Standard & Poor's 500, sometimes by large margins; in 1998, the fund lost 7.3 percent, a performance that was 35.9 percentage points worse than the index's. And the 1980's were bad for small-cap stocks, which were hit particularly hard by the recession early in the decade and lagged behind the market in subsequent years.

But the firm stuck to its strategy, Mr. Booth said, because "if you don't have a strong belief system, then

you blunder when trends are going the other way."

For individual investors, the most obvious problem with DFA funds is buying them. "We're really not equipped to be a retail sales organization," Mr. Siciliano said. "We're an investment research shop."

Mr. Herbert of Morningstar says that this is an advantage for fund shareholders because DFA does not "have to deal with finicky flows" into and out of its funds, which can hurt liquidity and returns.

The firm's funds are available to retail investors in two ways - through about 800 fee-only financial planners (www.dfaus.com/find_advisor) or through about 35 major 401(k) plans, including those of [Verizon Communications](#), [BellSouth](#) and the Sandia Corporation. Many of those plans offer a handful of DFA funds, often its Small Cap, Small Cap Value, Micro Cap, International Value and One-Year Fixed Income funds, Mr. Siciliano said.

