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This Is Rocket Science

Academic ideas spawned one company's great funds. But to get them, you must play by its rules.

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The story of dimensional fund advisors is unlike that of any other fund company. You can't just buy shares. Rather, you must first observe a courtship ritual and then hire an adviser. And if you're patient enough to listen and you agree with DFA that no one can beat the market, you'll be allowed to own DFA funds. As DFA's chief investment officer, Eduardo Repetto, puts it: "If we show you the data and you believe the data, then we are here to serve."

Just like Saab's claim that its cars are "born from jets," DFA funds are born of eggheads. Nobel prize-winning economist Myron Scholes sits on DFA's board, as does University of Chicago finance professor Eugene Fama -- considered a shoo-in for a future Nobel award. Chief executive David Booth and director Rex Sinquefield, who co-founded DFA in 1981, were Fama disciples in college. "When I walk into a board meeting," says Booth, "I don't have to worry about being the smartest person in the room."

The DFA philosophy boils down to the relationship between risk and return. History shows that some riskier stocks -- those of small companies and those considered undervalued -- produce higher returns on average over time than other types of stocks. "But on average doesn't mean every year," says Booth. DFA clients must be willing to endure periods of drought.

But over the long term, many DFA funds boast impressive results. DFA's marquee fund, U.S. Small Cap Value, for example, beats every relevant benchmark. The fund, which invests mainly in U.S. stocks with the lowest 10% of market capitalizations, returned an annualized 11% over the past ten years (all return data is to August 1). That beat both the Russell 2000 Value index, which measures undervalued small-company stocks, and the typical small-company value fund by an average of almost two percentage points per year. And it left the large-company Standard & Poor's 500-stock index in the dust by nearly eight percentage points a year.

DFA's small-company emerging-markets funds are also outstanding. But many DFA funds that stray from the firm's small-and-value credo are just average (see the table on page 40). So it's important to understand what this company does best.

Tweaking the rules

By all appearances, DFA funds are index funds -- but with some twists. Traditional index funds and the DFA products both seek to own certain types of securities -- such as U.S. small-company stocks or large-company international stocks -- without making judgment calls about a company's earnings, its executives' abilities and other such criteria that managers of traditional funds assess in making buy-and-sell decisions.

But the brains at DFA say they employ three tactics that help generate those precious extra percentage points of return. The first ingredient is DFA's flexible approach to indexing. For example, research by DFA and others has shown that real estate investment trusts don't provide the small-company performance premium. So out they go from DFA's roster of small-company funds. Also nixed are small companies that have only recently gone public -- in DFA's early years, says Robert Deere, a portfolio manager and trading strategist, its small-company funds "were getting slaughtered" because they held IPOs. Now, the hard-and-fast rule is that DFA won't own an IPO until it's been trading for at least six months.

As a result of these and other tweaks, the holdings of DFA U.S. Small Cap Value and the Russell 2000 Value index may overlap by only 30%. Says Deere: "We've learned a lot of these things the hard way. They don't hand out manuals on this stuff."

So DFA highly values pragmatism and hires a lot of engineers, some of whom are former rocket scientists. Deere worked with General Dynamics on space shuttle-related projects, and Repetto has a PhD from Cal Tech in aeronautical engineering.

When it comes to scary stocks, DFA can be *very* pragmatic. For example, just because a stock is the right size for a DFA small-company portfolio doesn't mean DFA will buy it. Deere recalls a company in U.S. Small Cap Value called Enron. As Enron's share price soared in the late 1990s, the fund unloaded the stock because it had grown well beyond the definition of *small* cap. When Enron's troubles became clear early this decade, the stock began to plummet and, says Deere, "One day the software said, 'Guess what? It's *baaaaack*.'" In the old days, DFA managers would have repurchased Enron shares (which eventually became worthless) because it again met DFA's definition of a small, undervalued company. But, says Deere, managers now have the latitude to consider that "they're carting people off in handcuffs and there are lawsuits everywhere."

Staying in motion

Another tactic DFA uses -- buying and selling stocks based on momentum -- makes finance profs grind their teeth. Most academics subscribe to the "random walk" theory, which says that prices of individual stocks move at random and can't be predicted. But DFA believes that a stock that's moving dramatically one way or the other tends to stay in motion for a while.

So when a stock spirals down into small-company territory, DFA managers will hold off buying it, even if the company *isn't* plagued by bad news. Likewise, managers won't immediately sell a stock that soars beyond small-capitalization boundaries. They may, in fact, hold on to it for months.

DFA managers don't rush to buy a full position, especially when it comes to so-called micro caps. Over time, micro caps, often defined as stocks with market values of less than $250 million, have beaten large-company stocks by a whopping four to five percentage points per year. But micro caps tend to be thinly traded, and buying them carelessly can erode much of their performance advantage.

So, again, rather than track an index to the letter, DFA takes a pragmatic approach. It buys stocks when it can get good prices and avoids the rest. By trading patiently, DFA officials say, the funds increase returns in micro-cap stocks. Head trader Henry Gray uses this example: Say sellers want $10.10 per share for a stock but buyers want to pay $10. "If you're an eager buyer, you're thrilled to pay $10.05, and you'll probably pay closer to $10.10. At Dimensional, we say, 'We'll sit at $10 and wait for sellers to come to us.'" (For a look at micro-cap funds that you can buy directly, see Tiny Companies, Huge Potential.)

Micro caps are one reason U.S. Small Cap Value performs so well compared with the Russell 2000 Value index, DFA officials say. The median market value of stocks in the index is $443 million, but only $129 million in the fund.

A more dramatic example of how DFA sets its own rules: In the case of its Emerging Markets Value fund, it shuns entire countries. While the benchmark MSCI Emerging Markets index includes 25 countries, DFA believes Russia and seven others don't pass muster because of weak accounting standards and an absence of strong property rights.

Another tactic that DFA uses to boost returns is to lend securities, particularly from its overseas stock funds, for a fee. The borrowers are usually investors who want to sell stocks short (a bet on falling share prices). For the year that ended last November, for example, International Small Company earned $20 million from its lending activities. That boosted the fund's return by 0.4 percentage point.

Jumping through hoops

Relatively modest operating costs (they're generally 0.60% or less) and low trading expenses are important elements of DFA funds' performance. Another way DFA keeps trading costs down is by controlling the flow of money in and out of its funds.

To make sure investors don't cut and run in bad times (such as the times we're in now), or pile into its funds in good times, DFA won't sell its funds to you directly. Instead, you must work through a financial adviser. Advisers charge for their services -- often 1% of the value of the assets they manage. That adds to your costs and wipes out much of DFA's advantages.

Advisers argue that their advice is worth the price. Not only do they provide clients with access to DFA funds, but they also provide professional portfolio management, as well as advice on insurance, taxes, estate planning and the like. But if you focus just on the investments, annual fees "at the 1% mark or above make it questionable whether you're going to do better with a DFA portfolio," says Russell Wild, a financial planner in Allentown, Pa. Wild admires DFA and uses its funds for his wealthier clients, but he builds portfolios with cheaper, exchange-traded funds for his less-affluent customers.

Although DFA started off by selling solely to institutions, individuals working through advisers now represent the bulk of its business. Of the $147 billion in assets under management, about $95 billion comes via 1,400 advisers nationwide.

And because you have to go through a DFA-approved adviser, you should know a little about him or her. DFA doesn't recruit advisers; those who want to offer DFA funds contact the firm, fill out a form that describes their business and entertain on-site visits from DFA representatives to ensure the adviser adheres to a buy-and-hold philosophy. Those who measure up are invited to DFA's offices, located a block from the famous pier in Santa Monica, Cal., at their own expense, for the investing equivalent of a Bible-thumping revival meeting.

Dartmouth finance professor Kenneth French, a DFA board member and finance big-brain, plays the role of Billy Graham at one recent meeting. French and his mentor, Fama, have done pioneering work together; their "three-factor model" basically says that stocks are riskier but more rewarding than the risk-free return from something like a money-market fund. Small-company stocks and undervalued stocks are even riskier, but they're even more rewarding.

French, who is piped in via closed-circuit TV, has preached at DFA headquarters many times before, yet his delivery remains fresh and wry. "Most of us are just wasting our money when we try to pick a superior active manager," he says, and those who do stumble upon a good manager are just lucky. He says investors suffer from overconfidence, attributing successes to their own brilliance and failures to "phenomenal bad luck."

Sticking with the plan

The road to salvation is clear, according to DFA. Renounce your hubris, ignore the Wall Street marketing din, and invest in low-cost funds that capture the returns of asset classes that have performed well over time. Advisers say they earn their fees by indoctrinating clients with the DFA philosophy and holding them to the program.

Several advisers at that recent meeting admit that they turned to DFA after failing to beat the market using actively managed funds. Several seem humbled and almost apologetic about their previous approach to managing money. Financial planner Scott Leonard, who uses DFA funds in his practice in Redondo Beach, Cal., says it's a big pill for some to swallow and offers an analogy: "Not only do they have to admit they were alcoholics, but also that their entire livelihood was based on the delivery and sale of alcohol." Some of the converts seem to go overboard. They become, as Wild puts it, "starry-eyed" DFA disciples who use only DFA funds.

But many, if not most, advisers pick their DFA spots carefully -- and are aware that not all DFA funds are created equal. Advisers who believe in a passive investing approach say they often supplement DFA funds with Vanguard index funds and assorted exchange-traded funds.

But converting to the DFA religion is more than just expecting superior performance -- it's accepting a belief system (one that's shared by other advocates of indexing) that places the wisdom of academics over the expertise of active fund managers. And that takes instruction. Says Repetto: "It's a process of education. If you don't go through that learning process, you'll never get here."