

# Journal of Indexes

SERIOUS IDEAS FOR SERIOUS INVESTORS

# LEGENDS OF INDEXING

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PEOPLE WHO CHANGED  
THE FACE OF INVESTING



## David Booth

*DFA's founder reflects on  
the varied nature of passive investing*

By Lara Crigger

*David Booth is known for his pioneering research on indexing theory and asset management, including the research paper he wrote with Eugene Fama, "Diversification Returns and Asset Management," which won a Graham and Dodd Award of Excellence from the Financial Analysts Journal in 1992.*

In 1981, Booth founded Dimensional Fund Advisors, where he still serves as chairman and co-CEO. The company offers more than 100 equity and fixed-income funds, which have been designed to emphasize "dimensions" of expected return in the global capital markets.

*In 2010, Investment News named Booth one of "The Power 20" in the financial services industry, and in 2012 he was awarded the Outstanding Financial Executive Award by the Financial Management Association International. The University of Chicago Booth School of Business was named in honor of him. Booth also serves as a lifetime member of the school's business advisory council.*

**Back in the day, you contributed seminal research about the value of diversification in improving one's portfolio returns. But as the correlations between asset classes keep rising, particularly post-financial crisis, is the story changing at all?**

Well, over some time periods, correlations are rising, and over others, they aren't. It's left to be seen exactly what the trends are.

But whatever they are, the benefit of diversification is that it's the closest thing we have in finance to a free lunch. We have no control over how valuable it is, because that depends a lot on the volatility of the markets. But I still say diversification is worthwhile.

**Why?**

Diversification offers all of the widely touted benefits. We see additional benefits from diversification in our implementation. Because we favor securities exhibiting certain characteristics instead of picking specific names, diversified portfolios act as our ally. We have many possible securities that allow us to capture the underlying dimension, affording us flexibility when trading in competitive markets.

**What exactly are "dimensions"?**

Different securities have different expected returns, which is where dimensionality comes in. Dimensions point to systematic

differences in expected return, which is what we care about when we design strategies. In identifying dimensions worth pursuing for our clients, we require them to be sensible, persistent, pervasive, robust and cost-effective to capture in well-diversified portfolios.

**Is dimensionality-driven investing dependent on the efficiency of the market? Does it still hold true for, say, emerging markets? Or alternative asset classes?**

Regardless of whether you think markets got it right or they got it wrong, the empirical evidence supports the existence of these dimensions across market segments and geographies.

Market efficiency can have many interpretations, but for us, it really comes down to the belief that liquid markets facilitate a very efficient transfer of knowledge from market participants into security prices—and these prices tell us something about expected returns. We choose to use that information in how we interpret the research, how we structure strategies and how we manage prices to add value over indices.

**What do you think has been the biggest change in the indexing industry over the past 20 years?**

I think it's the development of new indices based on academic research into dimensionality, particularly of equity returns. Nowadays you see many things like that coming under this loose heading of "smart beta."

**Given your work on dimensional investing, did you anticipate the industry's interest in smart-beta indexes at all?**

I didn't anticipate it, but this notion of dimensionality is something that's been around a long time. That it has picked up steam in the past 10, 15 years is very encouraging. But we've been in business 33 years now and I wouldn't have forecast that all of the sudden we'd see this big change in thought.

Let me back up. You start off in the mid-1960s with the capital asset pricing model, which was very simple, but never seemed to describe reality very well. In the 1980s, all kinds of anomalies started surfacing. Then, [Eugene] Fama and [Kenneth] French put together a paper in 1992 that showed we're living in a multifactor world. This theory had been developed by Bob Merton in the early 1970s, and Fama and French gave it empirical validity.

From there, it was only a question of time before indexing based on that research came to the forefront. Since 1992, we've had both the theory and empirical evidence to show that the market cap index is probably fine, maybe, but that there are other things you might want to consider too.

So I suppose with both theory and the empirical evidence supporting the idea, it's hard to believe it wouldn't have happened, eventually.

**The Dimensional Fund Advisors model is known for bridging that gap between pure indexing and active investing. Do you feel the world is finally catching up to your way of thinking?**

Well, I think it comes back to an issue of language. When you talk about "active" and "passive," these words have evolved in a way that's different from their original meanings.

I worked on the first index fund out at Wells Fargo in 1971. There, it was an equal-weighted index portfolio that tried to track 2,000 stocks on the NYSE with 100 stocks. The tracking error was enormous. But back in those days, tracking error wasn't something people worried a whole lot about. That's opposed to now, where people can get obsessed about it. But in those days, indexing could allow for large tracking error; you could have a wide range of portfolio strategies under the heading of "indexing." Back in the early days, indexing just meant you weren't trying to outguess the market. Nowadays, it means no tracking error.

The reason I bring that up is that when we have Fama speak, people ask, "Do you still believe in passive management?" He says, "Sure." Because in his view, dimensional investing *is* passive investing, simply because we're not trying to outguess the market. But I think most of our clients view us as active, because we incur tracking error in order to beat the market.

It's the darnedest thing. Labels are tough sometimes. But we haven't changed strategies. At Dimensional, we don't think we're outguessing the market, but indexing with a goal of zero tracking error is something we decided to not do. Our thought is, if there are things you can do through implementation and execution that can add value, then we're happy to incur some tracking error to do it.

**That's not necessarily a view often associated with indexing.**

Right. And when we started out, this was not an idea people thought was foolproof. There was a lot of skepticism. The question is, why do people want zero tracking error. Well, the answer is that makes your cost of monitoring go way down. Did your managers track the indices or didn't they? That's a simple way of monitoring, and a huge benefit of indexing.

But we're willing to incur a bit more tracking error, and that takes a bit more faith on clients' part that we are doing a good job. After all, what we could view as a negative tracking error, they

might view as the result of poor management. But over time, I think we've shown that we've been able to add value, and having some tracking error has been worth it.

**How much further do you feel that indexing has to go before it becomes truly mainstream in the investment industry? Or has it already "arrived"?**

I thought it had "arrived" in 1971. But for the average investor, I think the development of ETFs has likely been the big new event that has really made indexing go more mainstream.

Especially because now you see so many active managers claiming they can time the index funds. A lot of the same people who were selling active management by picking stocks are now saying, "Well, we can't pick it, but we can time markets using ETFs." We see a lot of that now. That too has helped make indexing more mainstream.

**Do you think indexing would have become as widespread as it is now without the development of ETFs?**

I think it may have taken longer, but it would have happened. I mean, ETFs do have some good uses. They are basically a way for people to easily access market segments that they're interested in. The concern is always, though, that we're just setting up a gambling casino, meaning investors will find different ways of making bets and increasing their portfolio turnover, which is antithetical to the purpose of indexing. People motivated to index want low turnover, so if the ETFs are providing a way to increase turnover, that's probably inconsistent with the basic motivation for indexing.

But I do think a lot of people now see the advantages of indexing. So I think some investors will try to time markets using ETFs, while others will conclude that timing is too difficult a thing to achieve, so they'll just use index funds long term.

When it comes to ETFs, it's all about how you use them. If you build that great Aston Martin, even if the car's terrific, you can't be sure people will drive it all that well.

**What do you feel is left for indexing, whether it's in terms of growth, asset classes, strategies, etc.?**

My guess is that the trends we've seen in the past five to 10 years will continue on for quite a while. The financial services industry doesn't move on a dime. It took a long time for smart beta to gain steam—I would say the notion goes back to that '92 paper by Fama and French—so if you think about it, it's been 20-some years for it to really get into full swing. These trends are probably good for another 20 years.

Beyond that, though? I don't know what it'll be. But it'll be something; something we haven't thought of yet.

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Diversification neither assures a profit nor guarantees against loss in a declining market. Investing involves risks including loss of principal and fluctuating value. There is no guarantee investing strategies will be successful.

Eugene Fama and Ken French are members of the Board of Directors for and provide consulting services to Dimensional Fund Advisors LP. Robert Merton is providing consulting services to Dimensional Fund Advisors LP.

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