

Straight Talk: Fama And French

Nouveau indexes, noise and the nonsense of active management
by: Eugene F. Fama and Kenneth R. French



Few academics have influenced modern portfolio management more than Eugene F. Fama and Kenneth R. French. Their 1992 paper, "The Cross-Section of Expected Stock Returns" (Journal of Finance, June 1992), turned the Capital Assets Pricing Model (CAPM) on its head and laid out a new explanation for the real source of stock returns.

The paper found that U.S. (and later international) stock returns could be explained by a portfolio's exposure to three factors:

- The market (i.e., beta)
- Size (small caps outperform large caps)
- Value (value stocks outperform growth).

Over time, this "three-factor model" has proven remarkably accurate, and has spawned a generation of investors (and a massively successful asset management firm, Dimensional Fund Advisors) that tilts indexed portfolios towards small and value. And even though traditional, "broad-based" indexers hate to admit it, those small/value investors have done pretty well over the past decade.

Journal of Indexes senior editor Matt Hougan spoke with Fama and French recently about the state of the market, the rise of "fundamentally weighted indexes" and why investors continue to throw money away on active management.

***[Fundamentally weighted indexes] are a triumph of marketing, and not of new ideas.
—Eugene F. Fama***

Journal of Indexes (Joi): *The market has been through some wild rides since you wrote your seminal paper in 1992. Has anything altered the views you have vis-à-vis the sources of return in the market?*

Kenneth French (French): I don't think so...

Eugene Fama (Fama): No, I don't think so.

French: Actually, I take that back. Initially, we thought the value premium was associated with distress risk. I'm not so confident of that any longer.

What's clear is that the value effect is a catch-all for differences in expected return. Without pernicious assumptions about expected growth, any differences in expected return will show up in ratios like book-to-market, earnings-to-price, or cash flow-to-price. Take a company with a high expected return. When you discount its expected future cash flows back to the present, the high expected return (which is also the discount rate) gives you a low price relative to the expected cash flows. As long as the fundamental metric—the book value, earnings, etc.—is a reasonable proxy for the expected cash flows, you'll also get a low price relative to the current fundamental. This simple discount rate effect implies that differences in expected return are almost certainly linked to ratios like book-to-market.

Notice that I didn't say why there are differences in expected return; I just said that if there are differences in expected returns, they will show up in ratios like book-to-market. That means the value effect is a catch-all that captures any differences in expected return—whatever their source.

I think the differences in expected return are the result of an amalgamation of different risks, plus some mis-pricing. And I don't think we have the technology to distinguish between those two.

Fama: I don't know about the mispricing. I don't know that there is mispricing.

French: There has to be some mispricing. I'm certainly not saying it's all mispricing. I like to tell people that it's 87.38 percent risk.

Fama: I don't know about the mispricing part. I think he's wrong there.

French: To get back to distressed companies ... the typical high book-to-market company is distressed. But if you hold book-to-market fixed and you sort companies by financial distress, you don't get much difference in average returns. So something else is at work.

Jol: *A raft of new academic, quasi-academic and "fundamentally weighted" indexes have come to the market in the last few years. What are your thoughts on these products? How do they fit or not fit with your research?*

French: The academics have been well aware of these issues for 15 years. It's just value vs. growth. It's nothing more than that. The argument that they've invented the notion that these measures capture mispricing is ludicrous. It's been in the academic literature for a long time.

Fama: And there are lots of active money management companies with products that claim to implement these ideas.

Jol: *So it's just another way of capturing the value premium? French: It's not even another way. It's the same way. I have a friend who calls it value investing for clients who don't understand ratios.*

Fama: It's a triumph of marketing, and not of new ideas. It's a repackaging of old ideas.

Jol: *What do you think of the dividend weighting schemes created by WisdomTree and others?*

Fama: That's worse. Of all the measures you can sort by, that one (dividends) produces the weakest value premium.

French: To be fair, what Jeremy Siegel (one of the developers of the WisdomTree indexes) is doing is different. He's not ignoring a huge academic literature and claiming he invented the idea of sorting stocks by dividends.

Fama: Well, I'm not so sure. He does claim this is a "financial revolution". But Bill Sharpe was promoting the idea 20 years ago. And the reality is that only 22 percent of firms pay dividends. What do you do with the rest?

Jol: *Have your views on efficient markets changed over the years? Are the markets becoming more efficient with the increased trading volume, etc.?*

Fama: I don't think anybody knows the answer to that. French: Stock returns are too noisy to tell. There may be more mispricing now or less, but there's no way to show that.

Fama: I think markets have always been efficient.

French: The reason we can't agree is that returns are too noisy to prove inefficiencies exist. I think there are inefficiencies.

Fama: Well, if you can't measure them, you might as well say they don't exist.

French: The bigger point as it relates to fund management is that I'm willing to concede that there is somebody out there who can beat the market. But returns are so noisy, I can't figure out who it is. And although I think there are some mistakes in prices, I think almost all investors lose when they go looking for them.

Fama: People think it's a one-sided battle. But active managers can have bad information about the markets just as easily as good information, and they can come out the worse for it.

Joel: But to broaden the discussion for a moment: One would think that, when the spread widens between growth and value stocks, investors can better capitalize on the more significant value premium. Do you think investors are able to use the spread to predict markets? Or to time markets?

Fama: There's no evidence that that works.

French: Again, it's the noise in returns that kills us. It's one thing to do a cross-section test with thousands of stocks and say that high book-to-market guys have higher returns. But if you want to say that, when the spread in book-to-market ratios is unusually high, you get an unusually high spread in returns ... well, you're only dealing with 78 years of data, so even if that relation exists, returns are so noisy it's hard to see it.

Fama: Yes. Differences in expected growth through time would cause the same fluctuations in book-to-market ratios.

French: People just don't appreciate noise. Academics do, but in the practitioner world, people live or die by the next year's return. We have a student who's operating in the real world, and he says it's a lot like Russian roulette: he knows most of his yearly return is determined by luck, but when you're playing Russian roulette, you care a lot about luck. Over the long haul he expects to win, but in the short run he knows it's almost all luck. But that's a Ph.D. from Chicago. The man on the street—or even a good MBA student— has a hard time embracing randomness.

Joel: What do you think about exchange-traded funds (ETFs)? Fama: They can be great for indexes and index portfolios. I think they're fine. Ultimately, it comes down to the cost: whether it is more or less expensive to invest via an ETF or via a mutual fund.

French: As Gene says, it all comes down to costs.

Joel: What do you think of some of the recent product developments in the financial markets? It seems like there are 200 new pseudo-active indexes and ETFs for every one new broad market fund.

Fama: It will be fascinating to find out how and if these new products actually work, but we don't have enough data to know that yet. It will take a long time for the data to accumulate.

French: One thing that relates to that is the growth of interest in behavioral finance. I have a sense that a little knowledge is a bad thing here. People read about behavioral finance and believe that it gives them a hunting license to go out and try to pick winning stocks, or to hire a manager to do it for them. But behavioral finance does not identify the mistakes in the market. Researchers are simply saying that ... well ... investors don't behave rationally, so there must be mistakes in the market. It doesn't follow that you can find those mistakes and exploit them.

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—Kenneth R. French

Joel: Is the value/small premium something that could wildly reverse, or do you believe it is certain or near certain? What time period/magnitude of reversal would it take for you to rethink your theories?

French: It's never certain—there are all sorts of variation. But over the long-haul, the relation between high expected returns and low prices is almost sure to hold, and that's going to give you a value effect in expected returns. You can undo it with pernicious growth assumptions, but the data show that the differences in growth actually go the other way.

One of the things that people often get confused about is the term "value." People will say: "Value's done well, so it's time for growth." What they miss is that there are different stocks in the portfolio each year—if a stock goes up, it probably moves out of the value portfolio, and new stocks will replace it.

What I keep coming back to is the fundamental logic: If I have a ratio like book-to-market or earnings-to-price, it picks up the expected return.

Fama: Another important thing is that we're talking about long time frames here. With risk/return, you get high expected returns because the high risk is there. But there are long periods where those returns do not show up. That is the nature of risk.

French: Again, it's the noise that people don't appreciate. They want to draw much stronger conclusions. If it weren't for noise, 98 percent of investors would see what's going on and buy passive strategies.

JoI: You've said that momentum is the key challenge to market efficiency, and that you can't explain why momentum exists in the market. Why can't investors profit from it? Why is it impossible to capture?

French: It's not impossible to capture. But it's a high turnover strategy, so the transaction costs associated with it are substantial. I think you can use the information associated with momentum in some situations. But if you try to set up a strategy to just exploit momentum, the trading costs will eat your profits.

Fama: It is by definition a high turnover theme.

JoI: Why is active management so persistent? Why do people keep putting money in something that just doesn't seem to work?

French: That's what behavioral finance tells us. People's perceptions are not consistent with reality.

Biography

Eugene F. Fama is the Robert R. McCormick Distinguished Service Professor of Finance at the Graduate School of Business at the University of Chicago. Considered the father of efficient market theory and the "random walk" hypothesis, Fama is among the most frequently cited researchers in the finance industry. He co-authored *The Theory of Finance* with Merton H. Miller, who was later awarded the Nobel Prize in Economics. Fama is also the director of research at Dimensional Fund Advisors, Inc., an investment advisory firm with more than \$125 billion under management.

Kenneth R. French is the Carl E. and Catherine M. Heidt Professor of Finance at the Tuck School of Business, Dartmouth College. He is the author of numerous articles appearing in the *Journal of Finance*, the *Journal of Financial Economics*, the *Journal of Business*, and other publications. French's recent research focuses on empirical estimates of the cross-section of expected stock returns, the cost of capital, dividend policy, and capital structure. He is President Elect of the American Finance Association, a Research Associate at the National Bureau of Economic Research, and an Advisory Editor of the *Journal of Financial Economics*.