

Asset Class Returns

March 31, 2013

	YTD 2013	Past 10 yrs.*	2012	2011	2010
Bonds (%)					
One-Year	0.2	2.3	0.9	0.6	1.2
Five-Year	0.4	4.0	4.8	4.5	5.3
Intermediate	0.0	5.3	3.7	9.4	6.9
Long-Term	-2.0	7.4	3.5	29.3	8.9
U.S. stocks (%)					
Large Market	10.6	7.0	15.8	2.1	14.9
Large Value	13.5	8.4	22.1	-3.1	20.2
Small Market	12.5	10.9	18.4	-3.2	30.7
Small Micro	12.1	10.4	18.2	-3.3	31.3
Small Value	13.8	11.3	21.7	-7.6	30.9
Real Estate	7.6	11.4	17.5	9.0	28.7
International stocks (%)					
Large Market	4.1	8.4	17.8	-12.3	9.3
Large Value	1.8	10.2	16.6	-16.9	10.6
Small Market	6.2	12.8	18.9	-15.4	23.9
Small Value	7.9	13.5	22.3	-17.5	18.1
Emerg. Mkts.	-2.1	17.4	19.2	-17.4	21.8

All returns except "YTD" (Year to Date) are annualized.

Descriptions of Indexes

One-Year bonds	DFA One-Year Fixed Income fund
Five-Year bonds	DFA Five-Year Global Fixed
Intermediate bonds	DFA Intermed. Gov't Bond fund
Long-Term bonds	Vanguard Long-term U.S.Treas.
U.S. Large Market	DFA U.S. Large Co. fund
U.S. Large Value	DFA Large Cap Value fund
U.S. Small Market	DFA U.S. Small Cap fund
U.S. Small Micro	DFA U.S. Micro Cap fund
U.S. Small Value	DFA U.S. Small Value fund
Real Estate	DFA Real Estate Securities fund
Int'l Large Market	DFA Large Cap Int'l fund
Int'l Large Value	DFA Int'l Value fund
Int'l Small Market	DFA Int'l Small Company fund
Int'l Small Value	DFA Int'l Small Cap Value fund
Emerging Markets	DFA Emerging Markets fund

"Past 10 yrs." returns are ended 12/31/12.

Equius Partners is an investment advisor registered with the Securities and Exchange Commission. Consider the investment objectives, risks, and charges and expenses of any mutual fund and read the prospectus carefully before investing. Indexes are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio.

Past performance is not a guarantee of future results.

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DFA and Vanguard

Setting the record straight

Jeff Troutner, Equius Partners

A reporter for the *New York Times* recently interviewed DFA's co-CEO and founder, David Booth, about the firm's excellent reputation in promoting good corporate governance through its proxy voting and its belief that markets produce better outcomes for investors than active management does.

The article, titled "Challenging Management (but Not the Market)," offers a good summary of DFA's approach and is generally well written. However, the reporter deviated from his main themes at one point to compare DFA's fund performance and expense ratios to those of the Vanguard Group. His explanation of performance was so misleading and inaccurate that it warrants a proper response. Before that, however, let's review in a little more detail the core differences between the two fund companies.

Research-Centric versus Cost-Centric

It's become common in articles written about DFA to introduce Vanguard at some point, with the focus almost entirely on cost—in particular the lower expense ratios of Vanguard's funds. Vanguard, after all, is *all* about fund expenses. Ergo, it's implied, Vanguard cares more about the small, less affluent investor who also happens to have all the knowledge (from Vanguard) and discipline (on their own) they need to get through all these volatile market cycles with the best results.

Is this true? Well, consider for a moment that Vanguard has multiple levels of fund share classes with expense ratios ranging from 0.57% down to 0.02% that are based on how much a person is able to invest in each fund. So while the media chooses to quote Vanguard fund expenses charged to its very largest investors, small investors don't get the same good deal.

In fact, an investment in any number of index funds at Vanguard will cost a small investor four times what it costs a larger investor. In contrast, DFA does not have share classes of this kind for its funds. As a result, the smallest investors at Vanguard will pay 70% more for a basic market fund than they would for a comparable DFA fund. On average, though, DFA funds have higher expense ratios than do Vanguard's index funds, to the tune of about 0.25%. Keep that number in mind as we review the performance of the DFA and Vanguard funds later.

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Is DFA greedier? No. DFA takes a decidedly more sophisticated approach to indexing than Vanguard does, therefore its investment in research, trading, and management is higher—resulting in funds engineered to deliver higher *net* returns over time. In other words, you really do get what you pay for.

John Bogle, the former chairman of the Vanguard Group, alluded to this in the *Times* article. About Bogle, the writer states:

He added that Dimensional's funds were generally impressive, but he said he was "skeptical" about the merits of the company's small-capitalization, value-oriented bias, saying that it was safer to mirror the overall market.

Is a focus on market-type funds safer for the investor or for Vanguard? The fact is, Vanguard virtually ignores the best financial economics research of at least the last twenty years. I say "virtually" because despite what Bogle says, Vanguard has a number of non-market index funds that tilt toward smaller and more value-oriented stocks. They're cheap compared to DFA's. They also haven't performed nearly as well, net of those low costs. Furthermore, almost 25% of the assets in Vanguard funds are actively managed. Is a commitment to the best research and net investor returns most important to Vanguard, or is gathering more assets under management?

This is the defining difference between Vanguard and DFA. Vanguard is stuck in a 1960s-era research world because the firm and its retail investors are comfortable there and it's generally low rent. DFA is far more progressive, due, in part, to its significant presence in the institutional market. DFA has taken the best of modern financial economics to enhance the investor experience. In fact, DFA is receiving a lot more press recently because of new research from Fama/French and its own internal research team that complements and enhances the strategies developed from earlier market research. In the end, DFA's approach focuses more on net investment *returns* rather than net *costs*. Now let's look at the results.

"Investor" Returns

The *Times* reported that

...investors in Vanguard stock mutual funds have had higher actual returns than investors in Dimensional funds. On an asset-weighted basis in the 10 years through Jan. 31, the return received by Vanguard investors was 6.614 percent, annualized, compared with 5.05 percent for Dimensional funds, Morningstar calculates.

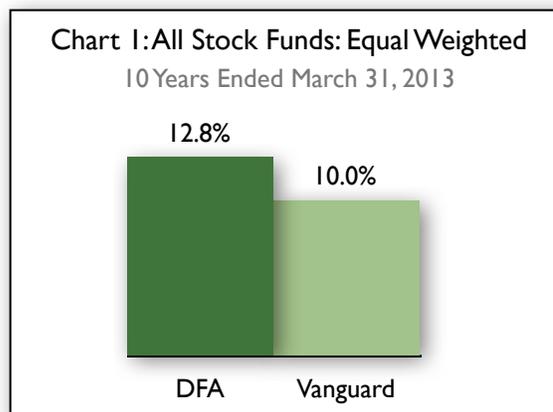
Setting aside the use of three decimal points as a cheap credibility enhancer, those two sentences are hopelessly confusing and misleading.

First, there is nothing "actual" about the returns the *Times* published. They don't represent actual mutual fund returns and they don't represent returns investors actually *realized*. They are instead a very poor estimate of what Morningstar terms "investor" returns, or what others refer to as "dollar weighted" returns, which purport to accurately account for the impact of cash flows from purchase and sales and the growth in fund assets. In other words, the calculation is intended to measure the negative impact of market timing. A noble pursuit, for sure, but very poorly executed by Morningstar to the point of being virtually meaningless.

Equius Partners uses results from a similar calculation that DALBAR has published for over twenty years in our investment planning meetings with new clients. The difference is that we've been aware of the flaws in the methodology since the beginning and point them out to our clients in an effort to offer a more conservative view of the impact of market timing. In other words, we know market timing has a severe negative impact on investor returns, but we also know that the Morningstar and DALBAR calculations seriously overstate it. There is simply no good way to measure the impact of market timing from published mutual fund cash flow data.

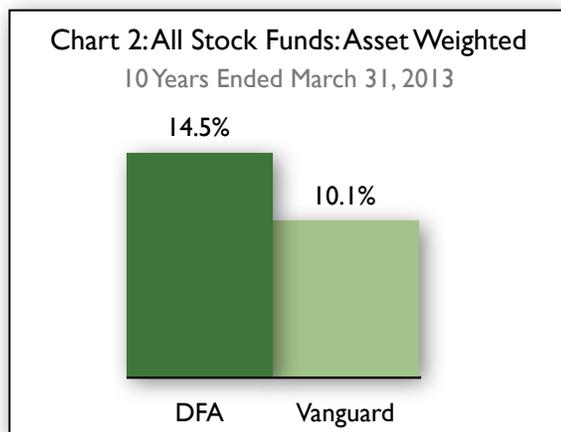
Actual Returns

There are several more meaningful ways to compare the performance of DFA and Vanguard stock funds. First, let's look at a simple average of all Vanguard and DFA stock fund returns over the last ten years ended March 31 (chart below). All returns are annualized and include all fund share classes (high and low expense ratios). Remember that 0.25% "savings" in fund expenses Vanguard markets to investors? How does it look now?



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If you asset-weight the returns (i.e., the largest funds have greater weight in the calculation), you get these results:



This chart actually understates the performance difference in favor of Vanguard because I included only its lowest-cost (usually “institutional” level) share class in each category. Morningstar does not break down the total assets in each share class, making a more accurate calculation impossible.

Note that the asset-weighted return for the DFA funds is higher than the equal-weighted return.

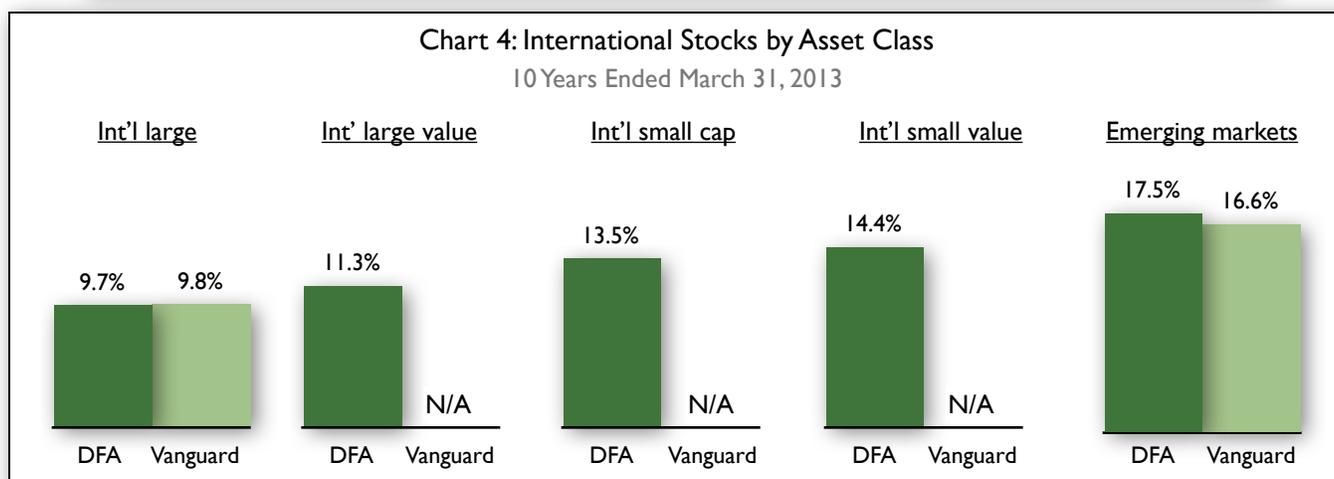
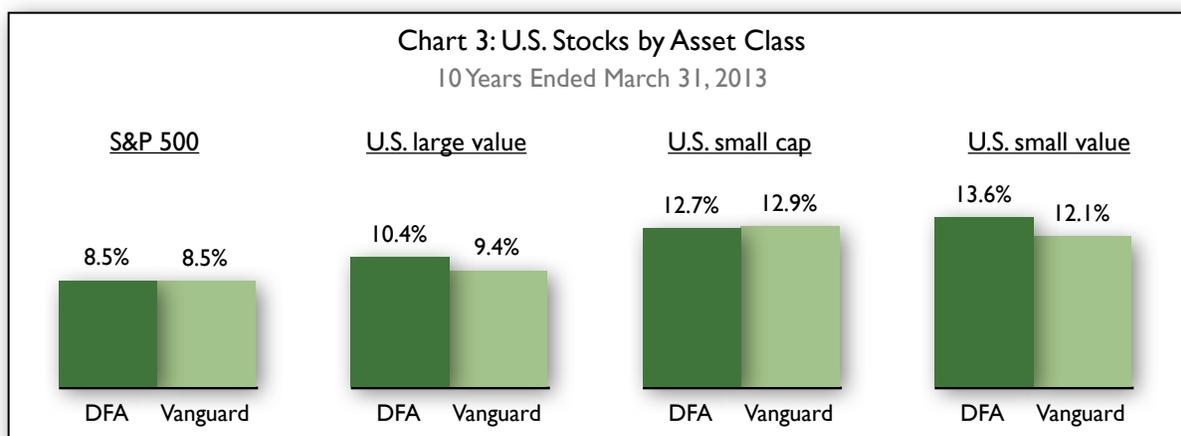
This is because (as we’ll see in a moment) the small cap, value, and emerging markets funds outperformed the general market over the last ten years (as you should expect long-term as well), and they account for the bulk of DFA’s fund assets. Vanguard’s asset-weighted return would be lower if all share classes were included because of their higher expense ratios *and* because the lower-return market-based funds account for the bulk of Vanguard’s assets (consistent with Bogle’s remarks in the *New York Times* article).

Now let’s look at fund returns from a Fama/French three-factor perspective by focusing on 1) market, 2) small cap, and 3) value funds for stocks in the U.S. and foreign markets. I use the least expensive Vanguard fund share class in each example.

It’s clear that DFA’s embrace of value investing and its attention to the optimized portfolio engineering has paid off for investors. On the U.S. side, the Vanguard fund has outperformed slightly in the small cap asset class over the last ten years. Since inception, however, the DFA funds have outperformed by 0.80% per year, net of fees.

We see similar relationships on the international side. Vanguard does not offer index funds for in-

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ternational large value, small cap, or small value asset classes. DFA also offers emerging markets value and small cap asset class funds, which have returned 20.1% and 20.0%, respectively, over the last ten years. Vanguard offers neither.

Discipline

Investors have clearly benefited from DFA's approach to building passively managed funds across the asset classes supported by the Fama/French research, particularly in the value stock asset classes. So a more *complete* knowledge of markets than what Vanguard promotes shows that low expense ratios do not always result in the best asset class investing experience.

But there is one more very important aspect of indexing and asset class investing that Vanguard tends to downplay, and that's the importance of discipline. The returns shown on the previous page cannot be realized by investors unless they are willing to buy and hold—with periodic rebalancing to their target allocations—through thick and thin.

For *investors*, indexing is clearly a smarter choice than active management (which is just well-packaged and marketed speculation). But indexing doesn't come with a behavior modification pill, and firms such as Vanguard do not prevent investors from jumping in and out of their funds any more than active fund companies do. In fact, Vanguard's (and the media's) obsessive focus on investment costs and do-it-yourself investing at the expense of so many other important considerations is leading many of its shareholders astray.

Worried about stock market volatility and negative short-term returns? Call the 800 number at your fund company and you're much more likely to be directed by the agent to one of their less volatile "products" such as a bond fund rather than calmly, wisely, and professionally counseled into staying the course with your long-term plan. Fund companies sell funds to customers, not manage long-term relationships for clients.

Want to benefit from the higher expected returns of value and small cap stocks in a balanced portfolio, especially at a time when fixed income yields are so low? These stocks tend to decline more during really bad market cycles such as 2008-2009. These higher expected returns *are not* a free lunch. They come with more risk, which can only be mitigated to some extent in a balanced asset class portfolio. Patience (sometimes *extreme*), confidence, and a firm hand on the tiller are also required.

Jason Zweig recently pointed this out in a *Wall Street Journal* article¹ when he stated that "the long-term rewards don't go to people who think

value investing is easy. Superior returns can be earned only by those who know that it is hard—and stay put."

As I've written in the past, I believe Vanguard is a good firm for *index* funds and therefore one of the best choices for truly disciplined do-it-yourself investors seeking only the market return, or close to it. Also, to its credit, Vanguard has periodically changed the indexes on which many of its fund are based in an effort to improve returns.

Advisors

At Equius Partners, we believe our role extends beyond simply explaining the details of *our* investment and client relationship approach and its benefits to investors. Every successful advisor or fund company does that well. It's called good marketing. But in an industry dominated by creative marketers and devoid of high professional standards, success should be defined first and foremost by the *total* client experience. This requires a critical look at our industry more broadly, from the very objective analysis of bottom-line performance to the significant value an advisor relationship can provide to individuals, families, charities, and other long-term investors.

¹"Value Stocks Are Hot—But Most Investors Will Burn Out," Jason Zweig, *Wall Street Journal*, February, 15, 2013.

The screen for DFA and Vanguard funds was performed using Morningstar's Principia Pro software. It included domestic, foreign, and sector stock funds with at least a 10-year track record through March 31, 2013. There were 37 DFA funds and 111 Vanguard funds in the "Equal Weighted" screen and 33 DFA funds ("R" class shares not included) and 45 Vanguard funds (only least expensive share class for each fund included) in the "Asset Weighted" screen.

Actual funds used in Charts 1 and 2 are: S&P 500 (DFA US Large Company, Vanguard 500 Index), U.S. large value (DFA US Large Cap Value, Vanguard Value Index), U.S. small cap (DFA US Small Cap, Vanguard Small Cap Index), U.S. small value (DFA US Small Cap Value, Vanguard Small Cap Value Index), Int'l large (DFA Large Cap International, Vanguard Developed Markets Index), Int'l large value (DFA International Value), Int'l small cap (DFA International Small Company), Int'l small value (DFA International Small Cap Value), Emerging markets (DFA Emerging Markets, Vanguard Emerging Markets Stock Index).

This article is for informational purposes only and should not be construed as specific investment advice tailored to an investor's unique needs, risk tolerance, and investment objectives. Investing entails risks, including possible loss of principal. There are special risk considerations associated with value strategy investing, international investing (including emerging markets), and small company investing. Consider the investment objectives, risks, and expenses of any mutual fund carefully before investing. For additional information about the Dimensional or Vanguard funds, please read their respective prospectuses carefully before investing.

Past performance is no guarantee of future returns.