

## Asset Class Returns

November 30, 2010 (YTD)

	2009	2008	2007	Last 10 yrs.*	YTD 2010
<b>Bonds (%)</b>					
One-year	1.9	4.0	5.2	3.7	1.1
Five-year	4.2	4.0	5.2	4.8	6.3
Intermediate	-0.7	12.9	9.5	6.9	8.2
Long-term	-12.1	22.5	9.2	7.4	13.1

<b>U.S. stocks (%)</b>					
Large Market	26.5	-37.0	5.4	-1.0	10.2
Large Value	30.2	-40.8	-2.8	4.4	12.3
Small Market	36.3	-36.0	-3.1	5.7	23.7
Small Micro	28.1	-36.7	-5.2	6.3	23.8
Small Value	33.6	-36.8	-10.8	9.1	22.5
Real Estate	28.2	-37.4	-18.7	10.5	24.0

<b>International stocks (%)</b>					
Large Market	30.6	-41.4	12.5	1.4	3.9
Large Value	39.5	-46.3	10.2	6.7	4.5
Small Market	42.0	-43.9	5.6	8.7	14.4
Small Value	39.5	-41.7	3.0	11.3	7.8
Emerg. Mkts.	71.8	-49.2	36.0	9.5	15.7

### Descriptions of Indexes

Short-term 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 Micro	DFA U.S. Micro Cap fund
U.S. Small Market	DFA U.S. Small 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

\*Last 10 yrs.\* returns are ended 12/31/09.

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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## November 2010



### Simple Math

*Jeff Troutner, Equius Partners*

When Equius developed its investment strategy eighteen years ago, our objective was to substantially alter the cost/benefit equation for investors. We knew from experience the direct costs of active management—much higher management fees, transactions cost, and taxes (the latter two due to much higher portfolio turnover). But we also knew the very high behavioral costs that active management extracts from naive investors because of its inherent flaws. These include the tendency to switch managers or funds too frequently based on misguided performance expectations, market timing in various forms, and the difficulty of analyzing the true risk of ever-changing active strategies.

Coincidentally at the time of our founding, William Sharpe, a Nobel Prize-winning professor at Stanford, published a paper that laid out in direct and simple terms the fact that active management creates no value for investors in the aggregate. Therefore, the “heads I win, tails you lose” proposition of active management created the opportunity to build instead a win-win business model around a “passive” asset class investment approach.

In “The Arithmetic of Active Management,”<sup>1</sup> Sharpe writes:

“Over any specified time period, the *market return* will be a weighted average of the returns on the securities within the market, using beginning market values as weights. Each passive manager will obtain precisely the market return, before costs. From this, it follows (as the night from the day) that the return on the average actively managed dollar must equal the market return. Why? Because the market return must equal a weighted average of the returns on the passive and active segments of the market. If the first two returns are the same, the third must be also.”

He concludes that *before costs*, the return on the average actively managed dollar will *equal* the return on the average passively managed dollar. As he points out in the paper, however, it must also hold true that *after costs*, the return on the average actively managed dollar will be *less* than the return on the average passively managed dollar, given that the cost of active management is substantially higher.

John Bogle, the former chairman of the Vanguard Group, and many other industry and academic experts have put the cost of active management at around 2% per year.<sup>2</sup> Because turnover is much higher in

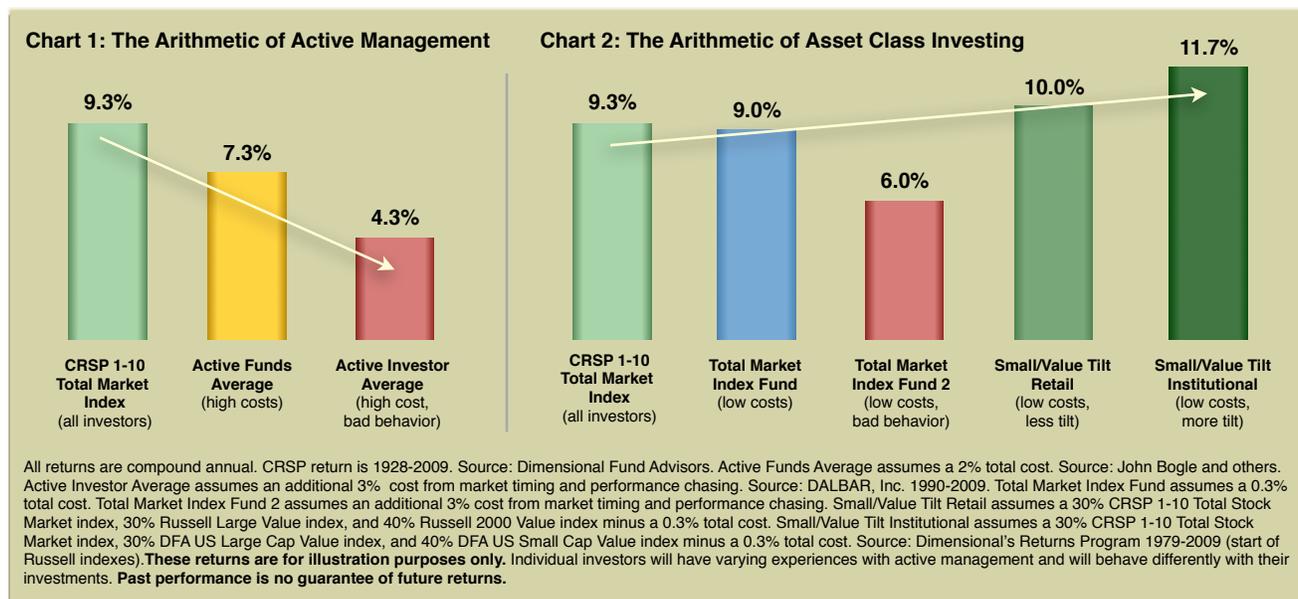
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active funds, *taxable* active investors also shift a percentage of their potential total return to Uncle Sam. This is due to the fact that these mutual funds generate much more short-term and long-term capital gains that must be passed through to investors, who then pay taxes regardless of whether the fund was up or down in performance for the year. Chart 1 illustrates this shift of investment return from the total market performance to fund managers, stock brokers, research analysts, and other investors (columns 1 & 2).

disciplined buy-and-hold investor. Surely I can beat the odds, right? Yes, if you're also *extremely* lucky.

In his best seller, "Unconventional Success: A Fundamental Approach to Personal Investment," David Swensen, the Chief Investment Officer for the Yale University endowment, cites an academic study that conservatively puts the failure rate of active strategies at 78%-95%. So you better be *extremely* lucky.

In its November 2010 "Persistence Scorecard," Standard and Poors found that over the five years



But that's not all. As bad as the high expenses and tax costs are, investors in general make things much worse through their bad behavior. Let's face it, investors in actively managed funds are concerned with only one thing: past performance. Much more important pieces of information, such as how a fund is allocated to large, small, growth, or value stocks; how diversified the fund is; the degree of securities overlap in funds in the portfolio; total costs; fund turnover; and the consistency of the investment strategy through the years, are things very few investors (and their advisors) really care about. So what's the result? According to DALBAR, Inc., it's another 3% return penalty for buyers of actively managed funds (column 3).

### Does Past Performance Really Matter?

But wait, you say. I do all my homework on funds with my trusty Morningstar database (or you rely on an advisor to do it for you) and I'm an extremely

ended September 2010, only 4.1% of large cap funds, 3.8% of mid cap funds, and 4.6% of small cap funds that beat the average fund over the previous five years subsequently maintained a top-half ranking over five consecutive 12-month periods. A random outcome would suggest a rate of 6.25%. In other words, a group of orangutans throwing darts at *The Wall Street Journal* mutual fund page would do better. So you better be *extremely* lucky.

### Basic Indexing

In contrast, Chart 2 shows what an investor can expect in *relative* return if he or she simply invests in a total stock market index fund. For the past 82 years, the U.S. stock market has returned 9.3% per year before inflation, taxes, and other costs. The Vanguard Total Stock Market index fund has underperformed the total stock market by 0.3% since its inception in May 1992, reflecting the relatively low costs of managing the fund.

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Therefore, an investor in a total stock market index fund should expect to outperform the average active fund investor by about 1.7% *per year*. The additional 3% “behavior penalty” is much less likely to occur, on average, with index fund investors since most have decided not to be performance chasers, at least to the extent active fund investors are.

Yet, we’ve seen even index investors flee stocks at what turns out to be market bottoms and rush in at market tops. We’ve seen them shift too often among asset classes, trying to be “in the right place at the right time.” We’ve seen them embrace commodity funds, over-allocate to emerging markets, and seek “alternative” investments—whether using index funds or not—in an attempt to enhance portfolio returns. All of these short-term tactics are likely to be counterproductive.

So rather than a 3% penalty, maybe it’s closer to half that, which is still a big penalty. To assume that index investors on average are disciplined buy-and-holders is naive—a misjudgment far too many of these investors make when they deliberately avoid the services of a disciplined advisor like Equius in order to “save” money.

### Asset Class Investing

An 18 year-old body of research shows that index investors can avoid making a Faustian decision just to save costs. I’m referring to the Fama/French research that indicates a “return premium” for low-priced (value) stocks and small cap stocks over time. This research shows the potential for bending the cost/benefit curve *upward* without resorting to the extremely low odds of active management or the behavioral traps to which many investors succumb.

These return premiums are not free—they come with extra risk. But adding these asset classes to a total stock market indexed portfolio has been shown to add about 1% per year to a total portfolio return with little, if any, additional *portfolio* risk (Chart 2, column 4). In fact, for the period shown in Chart 2 (from the inception of the Russell indexes to 2009), the portfolio was less volatile with the addition of large and small value stocks than was the total market index.<sup>3</sup>

This moderation of the risk is due to the fact that the small cap and value asset classes are not perfectly correlated to the total stock market index (which is dominated by large, higher-priced growth stocks).

This less-than-perfect correlation means that investors are able to realize a weighted average of the asset class returns with less than the weighted average of their risk.

Much lower costs and taxes; no reliance on “superstar” fund managers; no diversification overlap; no style drift; no market timing—and significantly better odds of beating the market. Not bad.

But there’s more. Retail index funds and ETF’s that target small cap and value stocks are not the most optimal passive alternatives. Since they are based on public indexes from S&P, Russell, and Morgan Stanley, they tend to dilute the return premiums these asset classes offer. Like total stock market indexes, they are dominated by larger and “growthier” (higher-priced) stocks. And, as financial columnist Jason Zweig just pointed out in a recent article, index funds based on these traditional public indexes are exploited by hedge funds on a regular basis.<sup>4</sup> These traders know what stocks must be included in the index funds and when. This drives up the prices of stocks targeted to enter the funds and drives down the prices of those designated to leave the funds, thus lowering the future index fund return.

Our answer to this challenge is to use more sophisticated institutional-level “asset class” funds based on private indexes that are more heavily weighted to the small cap and value dimensions. Expected returns increase without the cost imposed by hedge fund exploitation and manipulation.

Dimensional Fund Advisors (DFA) has created a series of indexes based on the Fama/French research that appear to bear this out. Over the 1928-2009 period when the CRSP 1-10 Total Market index returned 9.3% annually, a DFA index of large value stocks returned 10.5%, and one tracking small value stocks returned 13.1%. Using the period covered in Chart 2, a portfolio of these more focused indexes produced a *portfolio* return about 2.5% per year higher than the total market return, with a relatively insignificant amount of additional portfolio volatility.<sup>5</sup>

### Our Course

Chart 3 on the next page shows the growth of indexed assets since 1993. The first nine years saw a 200% increase in market share, from 3.2% to 9.7%. This was driven almost exclusively by the popularity of S&P 500 index funds—indicating once again the index’s tilt to the very largest and highest-priced

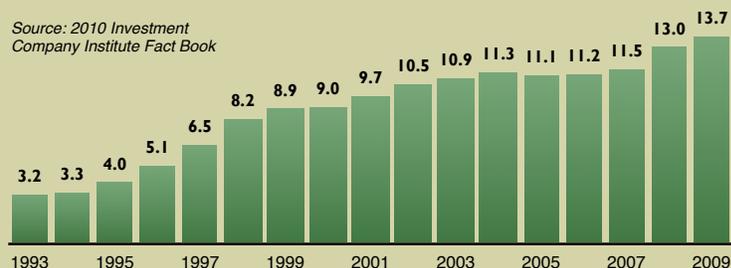
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stocks that were so popular during that time. Since then, the market share of indexed mutual funds has grown by only 41%. More than 80% of indexed assets were in S&P 500 index funds in 2009.

### Chart 3: Index Mutual Fund Market Share

Percentage of equity mutual fund total assets 1993-2009

Source: 2010 Investment Company Institute Fact Book



Most investors still see indexing in a one-dimensional way. Too bad. The arithmetic of active management was not suspended over the past seven years, so *disciplined* indexed investors continued to do well on a relative basis. But this was also a period when small cap and value stocks outperformed the total market by a wide margin. Those investors who embraced a multi-asset class approach to indexing—especially those who had access to the better-structured, institutional-level index funds and were willing to pay a reasonable fee for focused, disciplined advice—did even better.

When the arithmetic of active management became clear to me almost twenty years ago, I set my new firm on a one-way course. Despite the fact that 97% of stock investors were ignorant of the math (or ignoring it for various reasons), I didn't hedge my "bet" or reduce my business risk by offering both active and indexed strategies.<sup>6</sup> After having been a stock broker with Shearson Lehman Brothers, I was determined to be on the right side of the cost/benefit equation with my clients this time or leave the business altogether. I was fortunate in 2000 to find a business partner, Phil Jonckheer, who was equally committed to the same course.

Phil and I also realized early on that the *knowledge* of the arithmetic of active management and the benefits of asset class investing were not enough. We had to build an effective investment *counseling* aspect to our business in order to foster a buy-and-hold discipline with our clients. We would not be facilitators of fear- or greed-driven behavior and we were not simply

going to be toll collectors for restricted institutional index funds like DFA's. Neither of those routes was going to serve either our clients or ourselves very well for very long. Knowledge, discipline, and consistent, meaningful counseling must be present for an asset class strategy to succeed for any length of time.

We expect the same commitment to asset class investing from our clients. It is rare, therefore, for us to find client assets that are still invested in active strategies with other advisors. But those who have decided to maintain an exposure to speculative, low odds strategies have accepted that risk with their eyes wide open, given what we have consistently communicated to them. Those who refuse to learn and

acknowledge the arithmetic of active management seldom remain our clients for very long.

We expect, but can't require, the same commitment from some of the firms we partner with. This is why we're occasionally critical of them, as we were with Charles Schwab in the last *Asset Class* article, and why we let our feelings be known to DFA when they launch a commodity index fund or allow their funds to be used by advisors offering both active and passive strategies.

The math is simple. Either understand it and prosper, or roll the dice and hope for the best.

<sup>1</sup> Sharpe, William F., "The Arithmetic of Active Management," *The Financial Analysts Journal*, Jan/Feb 1991.

<sup>2</sup> Bogle, John, *Common Sense on Mutual Funds*, 2009, Chapter 3

<sup>3</sup> The CRSP 1-10 total market index had an annual standard deviation of 17.8 versus 16.5 for the "Small/Value Tilt Retail" mix with annual rebalancing, 1979-2009. Source: Dimensional's Returns Program.

<sup>4</sup> *The Wall Street Journal*, "Are Index Funds on Track to Become Even Harder to Beat?" November 27, 2010

<sup>5</sup> The CRSP 1-10 total market index had an annual compound return of 11.5% with a standard deviation of 17.8 versus 14.2% return with a standard deviation of 19.3 for the "Small/Value Tilt Institutional" mix with annual rebalancing, 1979-2009. Source: Dimensional's Returns Program.

<sup>6</sup> Beware of math-challenged advisors who offer both strategies (whether they are approved to use DFA funds or not)—unless they explain the low odds and high costs of active management to you very clearly. Then the decision is on you. Good luck.