### Asset Class Returns

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>Last 10 yrs.</th>
<th>2003</th>
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<tbody>
<tr>
<td><strong>Bonds</strong></td>
<td></td>
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<tr>
<td>Short-term</td>
<td>6.7</td>
<td>5.8</td>
<td>3.9</td>
<td>5.3</td>
<td>1.2</td>
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<tr>
<td>Five-Year</td>
<td>6.7</td>
<td>5.9</td>
<td>10.4</td>
<td>7.6</td>
<td>2.1</td>
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<tr>
<td>Intermediate</td>
<td>13.5</td>
<td>8.2</td>
<td>15.0</td>
<td>7.9</td>
<td>1.3</td>
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<td>Long-term</td>
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<td>4.3</td>
<td>16.3</td>
<td>9.1</td>
<td>3.3</td>
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<tr>
<td><strong>U.S. stocks</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Large Market</td>
<td>-9.3</td>
<td>-12.1</td>
<td>-22.2</td>
<td>9.3</td>
<td>21.1</td>
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<tr>
<td>Large Value</td>
<td>10.2</td>
<td>3.9</td>
<td>-14.9</td>
<td>10.8</td>
<td>23.1</td>
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<td>Small Micro</td>
<td>-3.6</td>
<td>22.8</td>
<td>-13.3</td>
<td>11.6</td>
<td>49.9</td>
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<tr>
<td>Small Market</td>
<td>2.5</td>
<td>12.7</td>
<td>-19.1</td>
<td>9.0</td>
<td>42.8</td>
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<td>22.6</td>
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<td>45.3</td>
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<td>Real estate</td>
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<td>13.2</td>
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<td>26.1</td>
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<td><strong>Int’l stocks</strong></td>
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<tr>
<td>Large Market</td>
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<td>-14.6</td>
<td>4.0</td>
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<td>-8.5</td>
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<td>36.6</td>
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<tr>
<td>Small Market</td>
<td>-5.4</td>
<td>-10.5</td>
<td>1.9</td>
<td>3.0</td>
<td>49.5</td>
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<tr>
<td>Small Value</td>
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<td>-4.6</td>
<td>5.8</td>
<td>3.8</td>
<td>56.0</td>
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<tr>
<td>Emerg. Mkts.</td>
<td>-29.2</td>
<td>-6.8</td>
<td>-9.4</td>
<td>12.8</td>
<td>45.3</td>
</tr>
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</table>

**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
- U.S. Large Market: DFA US Large Co. fund
- U.S. Large Value: DFA US Large Value fund
- U.S. Small Micro: DFA US Small Micro fund
- U.S. Small Market: DFA US Small Market fund
- U.S. Small Value: DFA US Small Value fund
- Real Estate: DFA Real Estate Securities fund
- Int’l Large Market: DFA Large Cap Intl fund
- Int’l Large Value: DFA Intl Value fund
- Int’l Small Market: DFA Intl Small Co. fund
- Int’l Small Value: DFA Intl Small Value fund
- Emerging Markets: DFA Emerging Markets fund

*Last 10 yrs.* returns are ended 12/31/02 and for U.S. Large Value (3/93), U.S. Small Value (3/93), Int’l Large Value (3/93), Int’l Small Market (10/96), Int’l Small Value (1/95), and Emerging Markets (5/94) include simulated data prior to fund inception (in parentheses).

This information is obtained from sources we believe are reliable, but we cannot guarantee its accuracy.

Past performance does not guarantee future returns.

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### Markets Update  October 31, 2003

I think it’s only appropriate on the scariest day of the year to present some new economic data for all of those investors who have been afraid to invest in stocks:

According to the Commerce Department, the economy expanded at a 7.2% annual rate in the third quarter. That was the fastest rate of expansion since the first quarter of 1984! Consumer spending grew by 6.6% (best in 15 years) and business spending rose by 11.1%, the fastest rate since the first quarter of 2000. Finally, exports were up 9.3%, evidence that a global recovery is in process.

Most investors have heard that good stock market performance is a leading indicator of economic recovery and that it is far better to buy stocks when news is bad than when it’s good. But it takes a certain amount of courage and emotional fortitude to make serious investment decisions when all you read and hear is scary stuff.

**The Problem With Indexing**

*Jeff Troutner, TAM Asset Management, Inc.*

Canny title for someone who’s been touting indexing’s benefits for over ten years now, isn’t it? Well, the fact is indexing has not been my favorite strategy for some time, but I’m just now getting around to acknowledging it publicly as new data on fund returns have become available.

Before you call me a heretic, let me explain myself. First, I am still rabidly anti-active management. The pitiful performance of active mutual funds and separate account managers over the past five years; the various Wall Street research scandals; the most recent late trading and collusive market timing schemes perpetrated by hedge funds, mutual fund companies, and fund custodians; and the re-rebirth of tactical asset allocation and other “acceptable” market timing strategies as answers to old-fashioned buy-and-hold have only strengthened my convictions. Basically I think the whole investment world outside of Valley Forge, Pennsylvania and Santa Monica, California stinks to high heaven.

Valley Forge is the home of the Vanguard Group and Santa Monica is home to Dimensional Fund Advisors (DFA). These two firms stand head and shoulders above all others for their commitment to passive investing, low costs, shareholder protection, and overall integrity and reputation.

Increasingly, however, the distinction between the index fund management at Vanguard and the structured “asset class” fund management of DFA is separating these firms on a philosophical and performance basis—and it’s not just a short-term phenomenon driven by recent asset class trends. There is now more than ever a fundamental difference in the underlying structure of their funds and the investment philosophy of their firms that investors—especially those paying an advisory fee to a firm like TAM—should understand in order to measure value-added in an environment of lower projected stock returns.

Simply put, an index fund’s primary goal is to track an index and a passively-managed asset class fund’s objective is to capture the capital market return of a given asset class. This is a very important distinction because, as it turns out, there is a cost to faithfully tracking an index, particularly in the more illiquid asset classes.

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(The difference between an index fund’s actual return and the return of the index it tracks is referred to as “tracking error.” High tracking error is not good.)

**Differences in Returns**

The past five years or so have provided a tremendous opportunity to evaluate the difference in index tracking versus asset class investing because of the dramatic shifts in asset class trends that have occurred. The table below shows the difference in comparable DFA and Vanguard funds since the bursting of the large cap growth “bubble” in March 2000. The second column shows performance going back as far as we can for funds in each category.

![Total Return Advantage Table]

Since April of 2000, the S&P 500 (our proxy for large growth stocks) has declined 30.0%. Large value, small cap, small micro cap, and small value have all appreciated—by 16.4%, 10.0%, 16.6%, and 47.3% respectively over the same period (using the DFA asset class funds as proxies for the asset classes).

We now have 15 years of live data for the DFA US Micro Cap fund and Vanguard Small Cap Index fund and the difference in annual return works out to almost 3% per year compounded! This demonstrates pretty clearly the advantage of a passive fund which more fully captures the asset class premium—in this case small company stocks.

**Differences in Investment Philosophy**

Vanguard has always been a retail fund company catering to individual investors and, as a result, the firm has based its index funds on well-known benchmarks from companies such as Standard & Poors, Russell, Wilshire, and MSCI. These indexes were not designed as investment vehicles, but rather as benchmarks with which to compare the performance of active money managers. From a fund construction point-of-view, however, these benchmarks have advantages such as name recognition, transparent security selection rules, modest licensing fees, and a wide following in the investment industry to name a few. From a performance perspective, however, these apparent advantages actually work against the fund company and its investors.

Name recognition, for example, stems from the fact the these indexes have been around a long time. In the case of the Russell 2000 small company index, this means limiting the index universe to the smallest 2000 of the largest 3000 publicly traded stocks. Today there are over 8,000 publicly traded stocks. So this “old” index effectively eliminates about 5000 smaller stocks from consideration. Since the S&P 500 has such strong name recognition, when it came time to build a large value index fund Vanguard simply chose a value index created by dividing the already growth-biased S&P 500 into growth and value stocks. Finally, the transparency of these indexes (published rules and rebalancing schedules) allow hedge funds and other active investors to exploit changes in the index in advance at a huge cost to the index fund shareholders (especially in the case of the Russell 2000-based index funds).

It could be argued that Vanguard makes less of an effort to maximize the returns of their small cap and value funds through better index selection (or, heaven forbid, creating their own) because former Vanguard chairman John Bogle and current head Gus Sauter do not believe that company size and price (value) are separate risk factors that generate return premiums that can or should be captured. This explains Mr. Bogle’s obsession with “Total Market” index funds and Mr. Sauter’s current view that indexes should be created based on the behavior of active managers (?!). In any case, investors in Vanguard’s funds should not expect comparatively higher returns in their small cap and value funds until this culture changes.

DFA, on the other hand, is primarily an institutional firm targeting large pension funds, endowments, municipalities, corporations, and clients of approved investment advisors. Since the company was founded, they have maintained a close working relationship with highly respected academics. Through people like Eugene Fama at the University of Chicago, DFA has access to the highest quality research and the long-term securities data residing on the Center for Research in Securities Prices (CRSP) computers. When DFA decided to develop their own passively-managed small cap and value funds they started from scratch in order to more fully capture the return premiums of these asset classes.

Since most of the DFA funds are based on proprietary “silent” indexes, the firm has more flexibility in engineering and managing the asset class funds to efficiently capture the risk/return characteristics of each asset class without concern for tracking error. Hedge funds and active investors cannot exploit changes in the DFA portfolios because they do not know in advance what or when changes are made.

The difference in Vanguard’s index fund approach and DFA’s structured asset class approach demonstrates that value can be added in the “indexing” world through solid research and high quality execution of sound principles. TAM clients benefit from a DFA culture that places great emphasis on both.