**Index Returns**

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<tbody>
<tr>
<td>Short-term</td>
<td>5.8</td>
<td>6.0</td>
<td>5.7</td>
<td>5.4</td>
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<tr>
<td>Intermediate</td>
<td>2.4</td>
<td>9.2</td>
<td>10.5</td>
<td>7.7</td>
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<tr>
<td>Long-term</td>
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<td>12.0</td>
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<td>Global</td>
<td>10.8</td>
<td>8.3</td>
<td>8.4</td>
<td>8.3</td>
<td>0.9</td>
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<table>
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<th>U.S. stocks</th>
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<td>33.2</td>
<td>28.7</td>
<td>21.4</td>
<td>1.1</td>
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<td>Large Value</td>
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<td>28.1</td>
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<td>Small Market</td>
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<td>5.5</td>
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<td>30.7</td>
<td>-7.3</td>
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<tr>
<td>Real Estate</td>
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<td>-0.8</td>
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<table>
<thead>
<tr>
<th>Intl' stocks</th>
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<td>Large Market</td>
<td>6.4</td>
<td>5.5</td>
<td>18.2</td>
<td>12.1</td>
<td>-1.0</td>
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<tr>
<td>Large Value</td>
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<td>-3.1</td>
<td>14.9</td>
<td>13.5</td>
<td>-2.4</td>
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<tr>
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<td>-23.7</td>
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<td>-0.8</td>
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<td>Emerg. Mkts.</td>
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<td>-18.9</td>
<td>9.4</td>
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<td>-2.2</td>
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**Descriptions of Indexes**
- Short-term bonds: DFA One-Year Fixed Income fund
- Intermediate bonds: DFA Intem. Gov't Bond fund
- Long-term bonds: Vanguard Bond Index Long-term
- Global bonds: DFA Global Fixed Income fund
- U.S. Large Market: Vanguard Index 500 fund
- U.S. Large Value: DFA Large Cap Value fund
- U.S. Small Market: DFA US 6-10 fund
- U.S. Small Value: DFA US 6-10 Value fund
- Real Estate: DFA Real Estate Securities fund
- Intl' Large Market: DFA Intl' Large Cap fund
- Intl' Large Value: DFA Intl' Large Cap Value fund
- Intl' Small Market: DFA Intl' Small Company fund
- Intl' Small Value: DFA Intl' Small Cap Value fund
- Emerging Markets: DFA Emerging Markets fund

* Last 6 yrs. returns for U.S. Large Value (3/93), U.S. Small Value (3/93), Intl' Large Value (3/93), Intl' Small Market (10/96), Intl' Small Value (10/95), 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**

**Thursday, January 28, 1999**

Need we say more about the markets in January than the chart on the right?

The following article describes the differences between “asset class” funds and traditional “index” funds. The author uses small company stocks and fixed income as examples, but the same concepts apply to “value” funds. In another paper outlining the difference between the DFA and Vanguard funds, he states, “With a client list composed exclusively of major institutions and sophisticated investment advisors, DFA has the freedom to design portfolios incorporating the most advanced thinking from the world’s leading financial economists. We are able to leave the important role of explaining our methodology and building proper portfolios to experienced investment professionals. Imagine if DFA had to communicate the high book-to-market concept or negative trading cost story to individual investors through a squadron of telemarketers and toll-free telephone lines!

They do a good job below and I hope we have lived up to our end of the bargain.

**Ways to Invest**

*Weston Wellington, Dimensional Fund Advisors (DFA)*

Over the past quarter century, investment managers have generally fallen into two broad categories, each reflecting a different belief system regarding the behavior of capital markets. These two schools of thought are usually referred to as active and passive. In recent years, a growing number of quantitative investment strategies have appeared that are neither active nor passive in the traditional sense and defy simple categorization. It may be more useful to think of philosophical differences between the two approaches as points along a spectrum, with active and passive representing the extremes but with points in between combining elements of both.

We will refer to these quantitative strategies as structured, and examine how they compare to traditional active and passive techniques.

**Active Management**

Active management is the traditional way of building a securities portfolio, and may include a wide variety of strategies for identifying issues that appear to offer above-average returns. One method might focus on companies with impressive growth in sales and profits, another on firms with promising new products, a third on "turn-around" situations. Regardless of their individual approach, all active managers share a common thread: they purchase securities selectively based on some forecast of future events. Implicit in this idea is the belief that carefully selected securities will produce higher rates of return than those chosen at random.

Active managers periodically reshuffle their portfolios in an effort to keep them stocked with only the most promising securities. The costs associated with generating and implementing these revisions make active management the most expensive investment approach. These expenses are passed along to the client. Studies of money manager performance over the past fifty years offer powerful evidence that active managers as a group are unable to generate investment returns high enough to recoup these costs and extract excess profits.

*continued on back...*
Passive Management

Passive or index managers – the terms are often used interchangeably – make no forecasts of the stock market or the economy, and no effort to distinguish "attractive" from "unattractive" securities. A passive manager investing in large U.S. companies, for example, makes no determination if Ford is preferable to General Motors, Coca-Cola to Pepsi, or Campbell Soup to Kellogg. Instead he or she simply buys everything from Abbott Laboratories to Xerox, resulting in a portfolio with hundreds of stocks. Portfolio adjustments are made only in response to changes in the underlying universe or index—when Chrysler disappears in a merger with Daimler Benz, or a new company such as Microsoft joins the ranks of large company stocks.

Passive managers often construct their portfolios to mirror the performance of well-recognized market benchmarks such as the Standard & Poor's 500 Composite Index (500 large U.S. companies), Russell 2000 Index (2000 small U.S. companies), or Morgan Stanley Capital International EAFE index (large international companies). Passive investment products first appeared in 1973 and have become increasingly popular, with over $1 trillion worldwide dedicated to various indexed strategies in 1997.

Structured Management

Structured and passive investing strategies share a common belief that market prices are the best estimate of value. Hence, neither attempts to "beat the market" through superior security selection. The structured approach recognizes that popular benchmarks for equity or fixed income securities were often developed as simple signposts of financial performance and were not intended to serve as blueprints for actual investment strategies.

There is reason to believe passive and structured investors are smart not to try to beat the market. Security prices reflect the collective judgment of investors regarding the appropriate price to pay when balancing prospective risk and reward. Academic research has focused on identifying the risk factors investors appear to care about in determining these prices. Bearing risk is what investors get paid for—the more clearly we can define risk, the better we can predict the expected returns that come with it. The structured approach takes insights about risk characteristics and designs investment products to isolate and capture them in a precise way. The resulting strategies may not necessarily match familiar equity or fixed income indexes, but often represent a more scientific approach to designing the asset class "building blocks" used to develop a total portfolio.

By starting with a clean sheet of paper, a structured approach can take into account characteristics unique to a particular asset class that make an indexed strategy less appealing.

The following are two examples:

Structured Strategy 1: Small Company Stocks

Small cap stock strategies are best served by a structured approach because they are difficult to index without bearing costs that swamp their higher expected returns.

Replicating a stock index entails purchasing the correct number of shares in a portfolio to match the securities' weights in the index. This approach has worked very well for strategies attempting to track a large company index such as the Standard & Poor's 500.

Indexing a portfolio of several thousand small company stocks may not be the optimal approach, since both turnover and transactions costs are sharply higher for small companies than they are for large companies. Turnover in a small-stock index can be significant—the annual reconstitution of the Russell 2000 index in June 1998 produced 523 new names. Index managers forced to buy these names may be negotiating from a difficult position. The poor liquidity and high trading costs associated with small firms creates an obstacle for investment managers seeking to capture their returns through simple indexing.

An alternative structured approach places priority on minimizing trading costs rather than "tracking" (replicating) the index. Stock weightings are relaxed relative to an index, allowing moderate overweighting or underweighting in specific issues. Stocks are purchased when they become available at attractive prices, avoiding the problem of "paying up" for certain stocks simply to match a theoretical index. A structured trading approach can add to investment returns by lowering transaction costs.

Structured Strategy 2: Fixed Income

Rather than replicate an index of fixed income securities, an alternative structured approach employs a shifting maturity strategy that identifies which point on the spectrum of all available maturity choices offers the highest expected return. Since these points will change frequently with changes in the shape of the yield curve, so will the average maturity of the portfolio. Like an indexed approach, the shifting maturity strategy requires no interest rate forecasting, but has demonstrated an appealing combination of risk and reward relative to conventional strategies.

The Best of Both Worlds

Low-cost passive investing has withstood a hailstorm of criticism since inception over 25 years ago, and delivered satisfying results for many of the world's largest investors. Active management continues to deliver performance that alternately delights or disappoints investors in an unpredictable fashion. Structured investing attempts to combine the best of both—the broad diversification, low cost, and low turnover of passive strategies with an active component that seeks to add value not through forecasting but through engineering and execution.