

# The Index Investor

*Why Pay More for Less?*

## **Model Portfolios Performance Update**

The objective of our first set of model portfolios is to deliver higher returns than their benchmarks while taking on the same level of risk. Through the first two months of 2001, their performance has been less than exciting, largely because of the unexpectedly strong performance of U.S. markets and the U.S. dollar relative to European markets and the European Currency Unit. Our first portfolio is based on a benchmark of 80% U.S. equities and 20% U.S. bonds. Through February, this benchmark portfolio's returns were (4.7%), while our model portfolios were (6.4%). Our second portfolio is based on a benchmark of 60% U.S. equities and 40% U.S. bonds. This portfolio was down (2.9%) through the end of February, while our model portfolio was down (5.2%). Our third portfolio is based on a benchmark of 20% U.S. equities and 80% U.S. bonds. Through February, this benchmark was up .8%. In this case, our model portfolio was constructed in two different ways, using both a currency hedged and unhedged allocation to international bonds. Through February, this portfolio was up .1% in the former case, and down (.4%) in the latter.

Our second set of model portfolios is intended to match the return on this same set of benchmarks, while taking on less risk. Through February, our 80/20 model portfolio was down (6.9%), our 60/40 model portfolio was down (4.0%), and our 20/80 portfolio was down between (4.8%), with currency hedged international bonds to (5.4%) with unhedged international bonds.

Our target return model portfolios are designed to maximize the probability of achieving certain minimum levels of returns while taking on as little risk as possible, subject to the common sense constraints we placed on the overall asset allocation (no more than 50% weighting to any asset class, except for a maximum of 10% in emerging market equities and 15% in commodities). For the year-to-date, our 12% target portfolio has returned

(6.4%), our 10% target portfolio has returned (6.9%), our 8% target portfolio has returned (4.6%) and our 6% target portfolio has returned (2.4%).

Last but not least, as an experiment we have this year introduced an actively managed portfolio. With this portfolio, we are attempting to show over time that market timing doesn't work as well as a more consistent asset allocation policy. The goal of this portfolio is simple: deliver as high a rate of return as possible, subject to two constraints: no more than 25% of the portfolio in any asset class, and rebalancing only on a quarterly basis (that is, at the end of March, June, September, and December). Year to date, this portfolio's return is (3.2%).

### **Products and Strategies: The New S&P Global 100 Index**

Last November, Standard and Poor's launched a new index, the S&P Global 100. On December 8<sup>th</sup>, iShares based on this index began trading in the United States under the ticker IOO. S&P's marketing materials state that the index is "designed to measure the performance [on a market capitalization weighted basis] of 100 large transnational companies which are of major importance in the global markets." At the end of 2000, the top ten companies (by market capitalization) in the index accounted for slightly more than 33 percent of its total value. These companies included General Electric, Exxon Mobil, Pfizer, Citigroup, Vodafone, AIG, Merck, Intel, Nokia, and BP Amoco. Why should an investor find this interesting? According to S&P and iShare's marketing materials, the new index provides diversification across countries, regions, and sectors, and enables you to "put the whole world in your portfolio with one trade." Given the potential attractiveness of this pitch, we spent some time looking more closely at this new index.

We first looked at the underlying regional weightings represented by the companies included in the index. Our standard for comparison was the country weightings used at December 31, 2000 in the broad FTSE All-World Index, which captures 90% of the

investable market capitalization developed and emerging country markets. Here is how the regional weightings used in the S&P Global 100 compare with those in the FTSE All-World:

<b>Region</b>	<b>S&amp;P Global 100 Weight</b>	<b>FTSE All-World Weight</b>
United States	58%	55%
Canada and Mexico	2%	3%
Europe	35%	27%
Asia Pacific	5%	15%
Total	100%	100%

As you can see in the table, the S&P Global overweights the U.S. and especially Europe, while underweighting Canada, Mexico, and especially the Asia-Pacific region.

Our next question was the extent to which the past returns on the S&P Global 100 index have been correlated with other indexes. The index performance data available on S&P's website covered the period from October, 1989 to October, 2000. During this period, the correlation of returns between the S&P Global 100 and other indexes was quite high, as shown in the following table:

<b>Index</b>	<b>Correlation of Returns with SPG100</b>
MSCI World (EAFE + US + Canada)	.91
Russell 3000	.90
MSCI EAFE	.75
MSCI Europe	.83
MSCI Pacific	.58
MSCI Emerging Markets	.59
S&P 500	.92
S&P 500 Growth	.91

S&P 500 Value	.78
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Given these data, we conclude that the S&P Global 100 index should not, in itself, be considered a separate asset class. In terms of correlation, its returns tend to move in line with those of large cap U.S. indexes.

But what about its return and standard deviation performance? How do these compare with other indexes? Between October, 1989 and October, 2000, the S&P Global 100 delivered average annual returns of 15.73%, with a standard deviation of 15.72%. Basically 1% of return for every 1% of risk you took. Over the same period, the S&P 500 delivered average returns of 17.37% per year, with a standard deviation of 15.83% -- or 1.10% of return per unit of risk.

Based on our assessments of correlations returns, and standard deviations, it doesn't seem to us that the S&P Global 100 is an index that is worth investing in. In a nutshell, to the extent that past performance can be used to estimate (but certainly not to guarantee) future performance, you can achieve a better expected risk/return trade-off by investing in a mix of indexes rather than the S&P Global 100. In short, while it may be effective as a marketing pitch (remember all those "internet index funds"?), it isn't from an investment perspective.

Finally, we have one more objection to the S&P Global 100, based not on statistics, but on business history. One of the attractions (from a marketing point of view) of the S&P Global 100 is that it is a collection of large "name brand" companies. However, as the book The Innovator's Dilemma (by Clayton Christensen, a professor at Harvard Business School) makes clear, these companies past success puts them at grave risk of being blindsided in the future by new entrants into their businesses. Why? Because large successful companies tend to be slow moving and bureaucratic, and too closely tied to the needs of their largest customers, who themselves may be losing market share to newer entrants in their own businesses. Think about it. For every successful company you can point to that has delivered superior results over long periods of time, you can easily think

of ten that have been blindsided by new competitors. In short, given business history, we are pretty squeamish about investing in a portfolio that consists of nothing but large companies.

### **Questions for Active Managers**

In response to a number of requests from our readers, we have prepared the following short summary of our arguments against active management. We hope you find it helpful in counseling your friends...

In a nutshell an active investor believes that he or she can regularly generate (or choose fund managers who can generate) returns that are above the returns generated by some benchmark index portfolio while taking on no more risk (beating an index by taking on more risk is much easier to do!). Broadly speaking, there are three ways an active manager can do this: (1) she could anticipate changes in the returns to equities and bonds and adroitly shift the portfolio's asset class weighting to anticipate them (this is known as market timing); (2) he could over or underweight different sub-groups within an asset class – for example, investing more than the benchmark in small cap growth stocks and long term bonds (these are known as “style tilts”); and/or (3) she could do a superior job of security selection – investing, for example, 50% of your assets in the stocks of just three companies whose value he expects to increase by a lot very soon (also known as “stock picking”).

So far, so good. We understand what an active manager could do to earn returns above the index benchmark while taking on no more risk. The more interesting question, however, is just how an active manager knows when, and to what extent, to make these active moves, or departures from the benchmark index portfolio. Basically, the insights that drive active investment management decisions have to come from one of two sources. The active manager either must have information that isn't available to everyone else in the market, or she must have a superior model for generating insight from information that is available to every investor.

With respect to superior information, we don't mean "inside information" that is illegal to trade on. Rather, it is a well-established fact that new information doesn't diffuse instantaneously to all investors. It takes time to reach some people, and, if an active investor can act before others get it, he can make money on the trade.

With respect to a superior model, you hear about them all the time, whether it is in the form of a manager who takes a "fundamental" approach and has "superior insight" into the meaning of industry trends, or a better "earnings forecasting model", or one that takes a "technical" approach and as a result has a "great feel for the market" and an ability to anticipate other investors' next moves and trade ahead of them to make money. Finally, both of these approaches also assume that the investment manager in question is superior to the thousands of other highly trained and intensely competitive people who are also pursuing the prize of above benchmark performance.

Finally, in addition to having superior information and/or a superior model, an active manager needs to have the self-discipline to overcome the emotions that tend to affect people's decision making. In recent years, the study of how and why investors diverge from pure rationality has become increasingly popular in the academic world, where it is known as "behavioral finance."

In previous issues of *The Index Investor*, we have written about this subject. However, a number of readers have asked us to list what we consider the most important errors that people make in their investment decision-making. So here they are, in no particular order:

The first source of investor mistakes is the way we form opinions. To begin with, it takes less information to form an initial opinion about an investment than it does to change that opinion later on. The impact of this error is compounded by our natural inclination to seek out and give more weight to new information that supports our existing opinions, and to discount information that contradicts them, which in turn gives rise to

overconfidence. As a result, asset prices tend to overshoot their “rational” levels, and it takes us longer than it should to recognize winners to buy and loser to sell.

The second source of investor mistakes is the way we react to potential losses and gains after we have bought an asset. As a long forgotten country songwriter once put it (accurately, it turns out, according to the latest research findings), “losing hurts twice as much as winning feels good.” As a result, we tend to hold our losers too long (to avoid the hurt), and sell our gains too soon. As another writer put it, if hope is the emotion you most associate with your portfolio, you’re likely in for trouble.

The third source of investor mistakes is myopia. We review our performance more often than we should, and, more importantly, trade on the results. Here’s an example: say you’re saving for retirement, which is twenty years away, and you’ve decided on your asset allocation policy. Over time, higher and lower returns will tend to cancel each other out, and the probability will increase that you will end up earning the rate of return you expected when you originally made your asset allocation decision. However, for many reasons (tax returns being one, and, in the case of investment managers, annual bonus calculations being another), you tend to review the performance of your portfolio at least once a year, if not more often. And with every review comes the temptation to add to the asset classes with the best performance, and sell those that are lagging behind. Not only does this unwind the “canceling out” effect, but it may also add costs in the form of trading commissions. Unless something fundamental has permanently changed, it is better to let time work for you, and avoid short term trading.

So there you have it: in order to regularly beat an index benchmark (while taking on the same amount of risk), an active manager needs to have superior information and/or a superior model, and/or more ice water in his or her veins than the rest of us. That’s a pretty tall order, especially considering how many very, very smart and well motivated people there are out there who are all playing the active management game against each other.

This brings us to the last reason an active manager might generate returns that are better than the benchmark he's measured against: he just might get lucky. The problem here is that over short periods of time, it is statistically impossible to distinguish between good luck and superior investment management skill. The only way to do this is to measure a manager's results over a long period of time, as only consistent returns above the benchmark can conclusively prove the presence of skill. Unfortunately, most active managers don't have a long enough track record to allow you to reach statistically valid conclusions about whether their performance represents luck or skill. On the other hand, since very few active managers have a track record of "beating the market" consistently, this isn't as much of a problem as it first appears.

Let's pull this all together in the form of a set of questions you should ask any active manager before you entrust the management of your portfolio to them:

**(1) What is the benchmark against which I should compare your performance?**

More specifically, what is your "base case" asset allocation policy? For example, for a U.S. based balanced mutual fund, it might be 60% equities (defined as the Wilshire 5000 Index) and 40% bonds (defined as the Lehman Brothers Aggregate Bond Market Index).

**(2) On an annual basis, as a percent of my portfolio's value, how much will your services cost me?**

Make sure that the cost of any front-end load or commission is taken into account in this calculation.

**(3) You claim that, in exchange for my paying you fees that are higher than what I would pay to an index fund, you will earn returns that are higher than those I could earn on those index funds. Will you also be taking on more risk than the index fund?**

**(4) When you compare your performance to an index, are you comparing pre-tax or after tax returns? And do your returns take into account the higher fees you charge?**

What after-tax returns have you delivered over the previous five years for investors in my tax bracket, after taking your fees into account?

**(5) What percentage of your above-benchmark returns do you expect to come from market timing, style tilts, and/or security selection?**

**(6) How do you know when to make these departures from your base case asset allocation policy?**

Is it because you believe you have superior information, or is it because you believe you have a superior model for making sense of information that everybody has access to? If it's a combination of both, what weights would you give to each of these factors?