

The Index Investor

Why Pay More for Less?

Year End Performance Review

Now we're done holding our breaths, we can finally report that, for the year just ended, six of our seven model portfolios outperformed their respective benchmarks.

In 2000, our high risk portfolio attempted to match the risk of a benchmark made up of 80% S&P 500 and 20% Total Bond Market Index while generating superior returns. This portfolio finished up 5.7% on the year, versus a loss of (5.0%) for its benchmark -- a performance difference of 10.7%. This portfolio benefited from the very strong performance delivered by the Oppenheimer Real Asset Fund during a year of sharp increases in energy prices (the fund was up 44.4% for the year as a whole), as well as investors' rotation out of large cap growth stocks and into both mid-cap (Vanguard Mid-Cap Index up 18.1% on the year) and small cap value stocks (Vanguard Small-Cap Value Index up 21.9%).

Our medium risk portfolio attempted to match the risk of a benchmark made up of 60% S&P 500 and 40% Total Bond Market. For the year just ended, this benchmark was down (.9%). Our medium risk portfolio finished up 6.8% for the year, for a performance difference of 7.7%. This result was due to the Real Assets Fund, the Vanguard Long Term Bond Market Index (up 16.6%), and the Vanguard Small Cap Value Index.

Our low risk portfolio attempted to match the risk of a benchmark made up of 20% S&P 500 and 80% Total Bond Market. This index finished the year up 7.2%. Our model portfolio finished the year up 12.6%, for a performance difference of 5.4%. The overwhelming story here is once again the performance of small cap value stocks and the Oppenheimer Real Asset Fund. As we have said before, the power of having an asset

class in a portfolio whose returns are negatively correlated with all its other holdings is difficult to overstate.

Our return based portfolios are structured to maximize the probability of achieving a specific target rate of return while taking on the lowest possible amount of risk. They are designed for investors who have a very clear idea of the minimum average annual rate of return they must earn on their portfolio to fully fund their liabilities over a specified period of time.

While these portfolios' returns for 2000 are in line with their relative risk, they are still well below where we would like them to be. For the 12% target return portfolio (that is, the portfolio which, over a twenty year holding period, has the highest probability of achieving compound returns of 12% per year, with the lowest possible risk given the asset classes it can invest in), performance for the year was (8.9%), which was 1.7% better than its benchmark portfolio of 100% the Vanguard Total Stock Market Index Fund, which was down (10.6%). (Note that these benchmarks were based on just two assets, the Vanguard Total Bond Market and Total Stock Market Index Funds).

For the 10% target return portfolio, the return for the year was (5.8%) versus (10.6%) for its benchmark. The full year return on the 8% target return portfolio was (3.8%), versus (7.3%) for its benchmark (85% Total Stock Market and 15% Total Bond Market). Finally, the 6% target return portfolio delivered a full year return of 2.3%, which was slightly under the 2.5% return delivered by its benchmark (40% Total Stock Market, 60% Total Bond Market).

International Bond Funds Revisited

In last month's Index Investor, we began a discussion about international bond funds. The logic for including an international bond fund in some of our model portfolios is straightforward -- its purpose is to protect returns under a scenario that combined low

economic growth (and low equity returns) and a loss of confidence by foreign investors in the future value of the U.S. dollar (which would drive down U.S. exchange rates relative to other currencies, and in so doing provide substantial capital gains on bonds denominated in those foreign currencies).

Up to now, the fund we have used to implement this asset class recommendation has been the T. Rowe Price International Bond Fund (ticker RPIBX). However, given the performance of this fund relative to some similar funds (notably the Fidelity International Bond Fund -- FGBDX and the PIMCO Foreign Bond Fund -- PFODX), a number of readers have asked why we haven't recommended a switch. Let's look at the arguments for and against doing this.

First, both the Fidelity and PIMCO funds have unquestionably outperformed the RPIBX. The respective rates of return for these three funds for the year 2000 were 9.7%, 8.4%, and (3.2%). Second, the relative costs of these funds are not out of line with each other. They are all no-load, and, based on their prospectuses, their expense ratios are similar (Fidelity's is 1.27%, PIMCO's is 1.16, and T. Rowe's is .91%). So far, it looks like a switch to PIMCO makes the most sense.

But wait -- there are three counter-arguments to consider. First, the trading turnover on the T. Rowe fund (at 94.9% annually in its latest report) is substantially lower than the turnover at either Fidelity (189%) or PIMCO (330%). As our readers know, high turnover can bring with it higher taxes, which, if the investment in question is held in a taxable account, can substantially reduce the returns actually realized by an investor.

Second, the investment policies of the funds are somewhat different. At Fidelity, at least 65% of the fund's assets must be invested in foreign debt issues, and up to 35% of its assets can be invested in speculative (read emerging markets) debt instruments. At PIMCO, at least 85% of the fund's assets must be invested in debt issued outside the U.S., but no more than 10% can be invested in less than investment grade instruments. And at

T. Rowe, at least 65% must be invested in foreign issues, and no more than 20% can be in low grade instruments.

Third, the currency hedging policies employed by the funds appear to be sharply different. Let's back up a step and review why this is potentially very important. Assume that you have a choice today between investing \$1,000 in a one year U.S. Treasury Bill yielding 4.91%, or using the \$1,000 to purchase 1,053 European Currency Units (Euros) and investing them in a one year German Government Bill yielding 4.533% (to simplify the example, forget about commissions). If you invest in the German Bill, you have to make a further choice -- whether or not to hedge your currency exposure (that is, whether or not to lock in now the rate at which you can convert those Euros back to dollars when the German Bill matures in one year). Let's assume that, due to market imperfections, you can sell those Euros forward (or, alternatively, buy dollars forward) at an exchange rate of .955 dollars per Euro. If you go ahead and buy the forward exchange contract, you will receive 1,100.73 Euros when the German Bill matures, which you will use to buy \$1,051.20. Because this is greater than the \$1,049.10 you would receive if you invested in the U.S. Treasury Bill, you might naturally choose to invest in the German Bill and lock in your profit by buying the forward foreign exchange contract.

On the other hand, if you expect the dollar to depreciate by an amount greater than is reflected in the current one year forward exchange rate, you wouldn't want to lock yourself into a lower rate of return than you think you could earn. For example, suppose the U.S. economy suffers a hard landing (rather than the soft one currently expected by most investors), and as a result the dollar/Euro exchange rate falls to \$1.15 per Euro. If that was to happen, your Euros 1,100.73 would be worth \$1,265.84 when the German Bill matures in one year, for a net return (in dollars) of 26.58% on the investment.

The bottom line is that when it comes to international bond investing, currency hedging matters -- often a lot. For example, during 2000, the U.S. dollar (on a trade weighted basis) appreciated by 6.64% -- in other words, an unhedged foreign bond fund whose

portfolio was weighted the same as the United State's trade with other nations would have seen its capital value fall by 6.64%, before taking any interest earnings into account.

So, as you can see, hedging is important. And the three funds in question do it differently. At one extreme, T. Rowe says it rarely hedges. At the other extreme, PIMCO says it regularly hedges 75% of its fund's exposure to exchange rate risk. In the middle is Fidelity, which fudges and says that its fund "generally uses foreign currency contracts to facilitate transactions in foreign denominated securities."

A further clue, however, is provide by the benchmarks against which these funds compare their performance. Both T. Rowe and Fidelity use unhedged indexes (respectively, the J.P. Morgan non-U.S. government index, and the Salomon Brothers non-U.S. 1+ year Government Bond index), while PIMCO uses the J.P. Morgan U.S. dollar hedged non-U.S. government bond index. This is not a "non-trivial" choice. Consider the respective annual rates of return and standard deviations on these two indexes between January, 1986 and November, 2000. The unhedged index had an average annual return of 9.83% with a standard deviation of 11.38% and just a .24 correlation with the Lehman Brothers Aggregate Bond Market Index, while the hedged index had an average annual return of 8.48% with a standard deviation of just 3.92% and a higher .59 correlation with the Lehman Aggregate Bond Index.

In terms of our model portfolios for 2001, the impact of a shift from using the unhedged to using the hedged foreign bond index is mixed. There is no change in the allocations for our high risk/ high return model portfolio. In our moderate risk/moderate return portfolio, the impact is a reduction in the weighting given to the Lehman Brothers Aggregate Bond Market Index from 30% to 10%, and an increase in the weighting of international bonds from 0% to 20%. However, the expected reduction in portfolio standard deviation is very slight. In our low risk/low return portfolio, there is a similar weigting change, with a reduction in the LB Aggregate Bond from 50% to 30% and an increase in international bonds from 20% to 40%. In this case, however, the expected reduction in portfolio standard deviation is more significant.

Similar changes occur in two of our target return portfolios. In the case of the 8 percent target return portfolio, the use of a currency hedged international bond index changes the recommended weighting of the LB Aggregate Bond index from 25% to 10%, while raising international bonds from 0% to 15%. In the case of our 6% target return portfolio, our recommended weighting of the LB Aggregate Bond index falls from 48% to 28%, while our recommended weighting of international bonds rises from 0% to 20%.

Over the next twelve months, we will report performance on both the currency unhedged and currency hedged versions of our model portfolios.

Commentary: Alternative 2001 Scenarios

As we begin 2001, we thought it would be helpful to our readers to briefly summarize two scenarios that will likely determine the rates of return earned on different asset classes this year.

In the first scenario, the slowdown in the U.S. economy accelerates, as the impact of declining consumer wealth (due to the fall in equity market values) interacts with the record high levels of consumer indebtedness to choke off spending. Reduced consumer expenditure, along with substantial increases in the costs of debt and equity capital, lead to sharp reductions in business capital investment, further contributing to the sharp reduction in U.S. economic growth. These two developments (made more vivid by a rise in both consumer and business bankruptcy filings) convince foreign investors to begin to repatriate some of the substantial amounts of money they have invested in the U.S. financial markets in recent years. This leads to a fall in the U.S. dollar exchange rate, which raises inflationary pressures and limits the Federal Reserve's ability to cut interest rates to get the economy growing again.

Overseas, the sharp slowdown in the American economy is very bad news for those countries whose growth is heavily dependent on exports to the U.S. These include Canada, Mexico, Japan, and most of the developing countries of Asia. Elsewhere in Latin America, however, countries like Argentina whose currency has been tied to the dollar could see increased growth due to a fall in their exchange rates.

Europe (which exports only 2 percent of its gross domestic product to the U.S.) could benefit from strengthening exchange rates, which would reduce inflationary pressure and create more room for interest rate cuts. On top of this, European consumers and corporations are generally far less leveraged than their U.S. counterparts. Moreover, European companies still have great potential to increase earnings by implementing the restructuring steps undertaken by most U.S. companies over the last seven years. In short, this scenario could generate attractive returns (in dollar terms) on both European bonds and equities.

If these developments happen quickly (as they are likely to in our ever more interconnected age), there is a risk that the U.S. equity market could go into free fall, while interest rates rise to offset a falling dollar. In short, it could get very ugly in 2001.

The second scenario sees a much more gentle landing for the U.S. economy, with falling energy prices reducing inflationary pressure, leading to early Federal Reserve interest rate cuts. These ease the pressure on both corporate earnings and equity market valuations, and in so doing maintain the confidence of foreign investors and keep them from pulling their funds out of U.S. dollar denominated investments. In this scenario, the returns from U.S. bonds are quite attractive, while those on equities tend to be flat to slightly down. Internationally, returns in Japan and emerging markets are also flat to slightly down under this scenario, while returns in Europe are still attractive, if not quite so much as under the other scenario.

For readers looking for early warning indicators of which scenario is developing, we would closely watch consumer confidence and spending indicators to gauge how fast the

economy is slowing. We would also watch the gap between U.S. and European interest rates; if the latter begin to fall beneath the former, it is a sign that the first scenario is developing.