The Index Investor

Why Pay More for Less?

Model Portfolios Performance Update

Through November 30th, our benchmark Vanguard S&P 500 index was down (9.5%) for the year, while the Vanguard total bond market index was up 9.4%. Our risk-based portfolios try to match the volatility of different combinations of these benchmarks while providing superior returns. Thus far, they continue to perform as we had expected.

Our high risk portfolio attempts to match the risk of a benchmark made up of 80% S&P 500 and 20% Total Bond Market Index while generating superior returns. Thus far, it is up .2% on the year, versus its benchmark, which is down (5.7%). This portfolio has benefited from the very strong performance delivered by the Oppenheimer Real Asset Fund (up 49.1%), as well as the Vanguard Mid-Cap Index (up 9.6%) and the Vanguard Small-Cap Value Index (up 6.6%).

Our medium risk portfolio attempts to match the risk of a benchmark made up of 60% S&P 500 and 40% Total Bond Market. Year to date, this benchmark is down (1.9%) through the end of November. Our medium risk portfolio is up .9% year to date, largely on the strength of its holdings of the Real Assets Fund, the Vanguard Long Term Bond Market Index (up 13.6%), and the Vanguard Small Cap Value Index. Our biggest disappointment with this portfolio is the performance of the T. Rowe Price International Bond Fund, which is down by (7.9%) year to date. However, we continue to believe strongly in the long-term value of this asset class, because of the protection it provides in case of a substantial drop in the value of the dollar.

Our low risk portfolio attempts to match the risk of a benchmark made up of 20% S&P 500 and 80% Total Bond Market. It is up 7.0% year to date, versus 5.6% for its benchmark. The overwhelming story here is once again the performance of 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 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 year to date is down (12.2%). For the 10% target return portfolio, the year to date return is down (8.5%). For the 8% target return portfolio, the year to date return is down (6.2%) and for the 6% target return portfolio, the year to date return is a breakeven 0.0%. Clearly, these portfolios will be substantially restructured next year, as we will discuss in the next section.

Portfolio Rebalancing Issues

When we began to address the question of our recommended portfolios for 2001, a number of issues came up. The first was the situation faced by our readers. The traditional approach to financial planning assumes that most variables are fixed at the outset, including the size and timing of a person's future cash needs (or their liabilities, in planner speak), the size of the current investment portfolio, and one's risk preferences and optimal asset allocation. The variable that changes to ensure that future savings are sufficient to cover future cash flow needs is the additional amount of money that is saved each year. Unfortunately, both our experience and an emerging body of academic research suggests that this approach is based on a mistaken assumption.

Let's start with what we all can see going on around us. In more than a few cases, rather than cutting back on their spending in order to increase their savings, people have shown that they prefer to take on more risk. In other words, they have shown that, contrary to theory, they are often more comfortable "backing into" their risk preference (and optimal asset allocation) than they are backing into their food budget. More than a few people seem to prefer more portfolio risk to more macaroni and cheese…

Fortunately, this observation is now being backed up by a number of academic studies, which have also found that people's risk preferences are anything but stable. For example, people who have recently enjoyed substantial investment gains have been found to be more willing to take on more risk, while people who have experienced recent losses often want to take on less. Balanced against this, however, is the "keeping up with the Joneses" effect, wherebye the perception that other people are earning higher returns on their investments than you are can lead you to take on more risk than you would if you didn't know the return on the Jones family's portfolio (assuming, of course, that Charlie Jones was telling the truth the other night…).

Whatever the cause, the bottom line is that for some people, the amount they can save is fixed, and the variable that changes is their risk preference and asset allocation, and not vice versa.

The second issue we faced is the investment environment we are likely to experience next year. In our view, it could be a very rough ride for the U.S. and parts of the world economy in 2001. The question is whether or not this justifies a short-term deviation from our long-term historically grounded asset allocation recommendations.

The third issue we raised is closely related to this last point: history isn't always a good guide to the future. This is particularly true with respect to the relative rates of return earned in any year by different asset classes. It is less true for the relative risk of different asset classes, which is more stable over time than relative returns.

Of course this begs another question, which raises our fourth issue: just how do you define an "asset class" anyway? This is particularly relevant when one is trying to construct portfolios that minimize the risk of loss (preservation of capital being particularly important in a downturn), because a portfolio's riskiness is a function not only of the standard deviations of the asset classes it contains, but also of the extent to which their returns are (or are not) correlated with each other.

So, how did we handle these four issues?

First, we have calculated two sets of recommended portfolios. The first set is intended to serve the needs of those investors whose savings rate is flexible, and whose risk preference is fixed. In this case, we started with the benchmarks we have always used: a high risk mix of 80% equities and 20% bonds; a medium risk mix of 60% equities and 40% bonds, and a low risk mix of 20% equities and 80% bonds. However, in recognition of the changed investment environment we are facing, this year we have attempted to construct portfolios that match these benchmarks' returns while taking on less risk, rather than trying to exceed their return while matching their risk. In our opinion, risk minimization (rather than performance chasing) is going to be the key to successful investing over the next year, and our risk-based portfolios reflect this.

Our second set of portfolios is intended to serve the needs of those investors whose savings rates are fixed, but whose risk preferences are flexible. These portfolios are structured to maximize the probability of achieving a specific target rate of annual return while taking on the lowest possible amount of risk. For each target rate of return, we have constructed two portfolios. The first is a benchmark portfolio, which uses a mix of just two broad asset classes. The second uses a broader mix of asset classes, and is intended to outperform the benchmark portfolio.

To address the potentially severe economic downturn that we believe is increasingly likely to occur in 2001, we have also constructed a "tactical" portfolio whose goal is to deliver superior returns in the circumstances we expect to encounter. Let us be clear: the

asset allocation in this portfolio is not the result of an optimization process based on historical data, but rather on our own subjective assessment of what we believe to be the best way to deliver superior returns next year. It is active management, pure and simple. Having said that, we should also note that we are working on a more quantitatively driven tactical asset allocation model that makes use of new Bayesian Belief Network software. However, that work is not yet finished. When it is, we will publish that portfolio as well.

Last but certainly not least, is the question of asset class definition. As we noted above, one of the two drivers of risk minimization is the correlation between the returns on different asset classes. In this regard, the cause of risk minimization benefits when asset classes are defined so as to ensure that their returns have low correlations. In fact, the more you think about this, the more it becomes clear that while the profusion of "asset classes" in recent years has no doubt done wonders for fund marketing, it has probably resulted in less optimal allocations in many investors' portfolios. With this in mind, we defined asset classes so that the maximum correlation between any two of them would be no more than .60. This more stringent definition of an "asset class" led to the collapse of several "sub-classes" into their parent. For example, returns on the S&P 500 Growth and Value indexes have a correlation of .79 (over the period from January, 1988 through September, 2000), while returns on the Russell 2000 Growth and Value indexes have a correlation of .81. The same thing happens in fixed income, where the Lehman Brothers long-term bond index has a .92 correlation with the intermediate term index. This left us with seven asset classes, which we used to construct our model portfolios: a broad U.S. Equity Index, a broad U.S. Bond Index, a Commodity Index, a European Equity Index, a Pacific Equity Index, an Emerging Markets Equity Index, and a Non-U.S. Bond Index.

The specific investments we used to track these indexes include the Dow Jones Total Market Index ETF (Exchange Traded Fund), the Vanguard Total Bond Market Fund, the Oppenheimer Real Assets Fund, the Vanguard Europe Fund, and the Vanguard Pacific Fund, the Vanguard Emerging Markets Fund. For our Non-U.S. Bond Index fund, we have historically used the T.Rowe Price International Bond Fund (ticker RPIBX). However, in recent years, this fund's performance has been disappointing relative to its

peers. On the other hand, some of these better performing peers have substantially higher expenses and/or charge sales loads. Taking these factors into account, the two best alternatives we have identified are the Fidelity International Bond Fund (FGBDX) and the PIMCO Foreign Bond Fund class D shares (PFODX).

Model Portfolios for 2001

Risk Based Model Portfolios for 2001

High Risk ModelPortfolio		*Weight*
Dow Jones Total Market Index		50%
Vanguard Europe Index		30%
Vanguard Emerging Markets Index		5%
Oppenheimer Real Assets Fund		15%
Medium Risk Model Portfolio		
Dow Jones Total Market Index		50%
Vanguard Europe Index		5%
Vanguard Total Bond Market Index		30%
Oppenheimer Real Assets Fund		15%
Low Risk Model Portfolio		
Dow Jones Total Market Index		20%
Vanguard Total Bond Market Index		50%
T. Rowe Price International Bond Fund		20%
Oppenheimer Real Assets Fund		10%

Return Based Model Portfolios for 2001

12% Target Return Portfolio	*Weight*		
Dow Jones Total Market Index	50%		
Vanguard Europe Index	25%		
Vanguard Emerging Markets Index	10%		
Oppenheimer Real Assets Fund	15%		
10% Target Return Portfolio			
Dow Jones Total Market Index	50%		
Vanguard Europe Index	30%		
Vanguard Emerging Markets Index	5%		
Oppenheimer Real Assets Fund	15%		
8% Target Return Portfolio			
Dow Jones Total Market Index	50%		
Vanguard Europe Index	10%		
Vanguard Total Bond Market Index	25%		
Oppenheimer Real Assets Fund	15%		
6% Target Return Portfolio			
Dow Jones Total Market Index	32%		
Vanguard Europe Index	5%		
Vanguard Total Bond Market Index	48%		
Oppenheimer Real Assets Fund	15%		

Active Management Model Portfolio for 2001

Dow Jones Total Market Index	25%	
Vanguard Europe Index	20%	
Vanguard Total Bond Market Index	25%	
T. Rowe Price International Bond Fund	25%	
Oppenheimer Real Assets Fund	5%	