Fund focuses on maximizing return at lower risk by selecting the best-performing asset mix rather than through security selection.

An Approach to Adding Value by Allocating Among Asset Classes

An interview with Thomas Hazuka, portfolio manager, Vanguard Asset Allocation

More and more, investors are beginning to appreciate the substantial affects that asset allocation decisions can play on one's total return.

While many investors choose to make asset allocation decisions themselves, others prefer outside expertise. As a result, a growing number of asset allocation mutual funds have been created.

One such fund that has performed well recently and over the longer-term is the Vanguard Asset Allocation fund. Over the last five years (through June 30), the fund was up 14.3% compared to 12.0% for the average balanced fund and 15.7% for the S&P 500, according to AAII's Quarterly Low-Load Mutual Fund Update *[which includes all asset allocation funds in the balanced category]. For the last three years, the fund was up 13.6% compared to 10.2% for the average balanced fund and 17.2% for the S&P 500; for the last year the fund was up 19.6% compared to 14.7% for the average balanced fund and 25.9% for the S&P 500.*

As of mid-year, the fund had about $2.2 billion in total assets.

Vanguard employs Mellon Capital Management Corp. as the investment adviser to the fund. In early August, portfolio manager Thomas Hazuka discussed the management of the fund with Maria Crawford Scott.

What is the investment objective of the fund?

The fund can invest in stocks, bonds, or cash equivalents, with the objective to have the fund, using a valuation process, opportunistically tilt towards the best-performing asset class and add value in that way. Vanguard lists us as an equity fund, although we can invest in stocks and bonds, but the goal is to achieve close to equity-like returns at lower risk.

But when you invest in these asset categories, you are not making individual security selections?

When we invest in the asset classes, we are actually investing in indexes, so that when we invest in equities we invest in the S&P 500; when we invest in bonds, we invest in long-term Treasury bonds. We think that makes sense because, over time, much of the value in terms of your return comes from the asset class rather than individual securities within the class. We want to be able to add real value, which means net of the transactions of moving around and, therefore, we want to invest in very liquid vehicles that capture the asset class exposure. And in equities, for instance, there is nothing more liquid than the S&P 500.

What is the variation in terms of allocation to the various asset classes?

In theory, we can go from zero to 100% in each of the asset classes. However, the model that we use has a benchmark, so that typically, when the markets are fairly valued, we allocate around 60% to stocks and 40% to bonds. When we see asset classes becoming misvalued, we move away from that neutral benchmark, but we rarely take extreme positions unless there are extreme misvaluations. For instance, there are only two times in the history of this model that it has called for as little as 10% in equities—once was right before the stock market crashed in the beginning of October 1987 and the other time was in 1973, right before the bear market of the early '70s. The model wasn't used for institutional clients until 1977, and the Vanguard fund was started in 1988, but the model was developed in 1972.

How do you value an asset class?

We have a long-term valuation approach that looks at the returns on the asset classes, the risk of the asset classes and the correlations among asset class returns. The idea is that as an investor, you want to look at the different investment alternatives—the expected returns on the investment alternatives. Given a risk/return trade-off, you're going to choose that investment alternative that maximizes your risk-adjusted expected return. That's a simple economic theory. And in this case the different alternatives are simply different mixes of the asset classes.

The first thing we do is to estimate the inputs, which are the expected returns and the risk levels. In terms of expected returns for bonds, it is straightforward—we simply use the yield-to-maturity on a long-maturity bond [yield to maturity assumes the bond is held to maturity and all interest payments are reinvested and compounded at the

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The Vanguard Asset Allocation Fund is part of the Vanguard family of funds, P.O. Box 2600, Valley Forge, PA 19482; (800) 635-1511.

yield to maturity].

For expected cash returns, we don't simply look at the current cash yields, but instead we make an assumption that cash eventually is going to reach an equilibrium where it provides a sort of constant real return [relative to inflation].

On the equity side it becomes a lot more complex. We treat stocks almost like bonds and what we want to calculate is something that's akin to a yield-to-maturity for each stock. For instance, with a bond we basically look at the price of a bond versus the cash flow to calculate the yield-to-maturity. Similarly, for a stock we know the price, and what we then have to estimate are the cash flows, which of course are the dividends. In other words, we use a dividend discount model. To use the model, we have the price, but we have to estimate the dividends. We do not use our own forecast, but instead we rely on an analyst consensus forecast [provided by a service] stock by stock, using the average of those estimates. The bottom line is that we are able to derive an expected return for every stock in the S&P 500, which we weight according to the stock's weighting in the index, and thus come up with the expected return for the stock market. That number now happens to be a little bit above 11%.

How often does this change?

We calculate the expected returns every day, since prices obviously change everyday. We update the analysts' forecast once a week and there are some other long-term forecasts we need such as long-term inflation, that we update as needed, at least quarterly.

And when you say you currently estimate the return on the S&P 500 to be 11%, that would be a long-term return estimate?

That is our estimate of the average expected return over the next 10 years of the S&P 500. The process has a formal 10-year horizon, so we're actually estimating returns for an investor with a 10-year horizon.

These expected returns aren't based on history at all, rather they're based purely on the current prices and future cash flows. It's not that we're saying the stock market's going to return 11% over the next 10 years because that's what it returned over the last 10 or 20 years—it really has nothing to do with historical returns on the market.

What about risk?

We do use historical risk—standard deviation [variation in returns around the average]—going back about 20 years. We make some minor adjustments for current market conditions, but we're not trying to come up with the expected risk over the next three or six months, but rather the average risk over the next 10 years to match it with the expected returns over the next 10 years.

And we use historical correlations, which are the relationships of how the returns could vary over time. The model then looks at all of the different mixes of stocks, bonds, and cash in 10% increments—90% stocks, 10% bonds; 80% stocks, 10% bonds, 10% cash—and it calculates the various expected return and risk levels, which are adjusted given their risk levels. What we then have is each possible mix and its risk-adjusted return.

Our recommended mix for the day is that mix with the highest risk-adjusted expected return.

What's the recommended mix of the day today?

It has been running at 60/40—60% stocks, 40% bonds for the last few months, which is neutral.

How often do you make changes in the portfolio?

We have trading rules that tell us when to make changes. The first trading rule is that, as I mentioned, we only look at the mixes in 10% increments, so minor changes in valuations might not even affect the model.

The second rule is that if the model calls for a 10% change, we're going to wait a month because we don't want to be flip-flopping back and forth between one mix and another. So, we want to see the model call for a different 10% recommendation continuously for a calendar month before we make that change. However, if the model calls for a 20% or greater change from where the fund is, we'll move within a day or two. That results in an average of between two to six allocation changes a year. Last year was a very active year, and we moved probably six times. This year, we've moved twice.

And what kind of portfolio turnover do your asset allocation changes tend to result in?

It varies considerably from year to year, but I think you could expect between a 50% and a 100% turnover depending on the years.

Is there a single factor that tends to cause the greatest changes in the model?

The earnings changes tend to matter over the longer run, but they are not numbers that change dramatically in the short run, although last year there was actually a very dramatic increase in the earnings estimate on the S&P, which caused us to move up to 80% equities at the end of May even though the market was already up 20%.

The model tends to be constantly driven more by interest rates on the fixed-income side than by stock prices, in that the expected returns change more dramatically for a given change in bond prices than in stock prices. Last year most of the moves seemed to be driven more by the bond market. For instance, another reason that we moved up to 80% equities at the end of May last year was that the bond yields had fallen by about 150 basis points, which was a dramatic decline in interest rates. Then as the year went on and interest rates changed, you saw us reacting by moving between stocks and bonds.

If you are using analysts' forecasts, doesn't that imply that you are able to move a little bit ahead of the overall market, which hasn't yet adjusted to those expectations?

That's right, particularly in stocks versus bonds. Again, going back to May of 1995 when the bond market had fallen so much because yield and earnings expectations had risen, the expected stock returns looked much more attractive than expected bond returns, forward-looking. And that's very important—we're not simply reacting to past price changes, but we're always looking into the future, calculating what we can expect to get from an asset class in terms of return over the longer term.

We basically don't try to predict short-term changes in yields or prices. We just look at the current valuation based on expectations, which means that one drawback of the model is that sometimes we go into an asset class a little too early, and sometimes we come out a little bit too late. But overall, we don't want to try to do short-term market timing because we think that would add more noise than value.

How do you distinguish yourself from a market timer?

When you talk about market timers, a lot of them tend to go to all stocks or zero stocks—they tend to make wide movements—and they tend to ignore bonds and move between stocks and cash. Also, what they tend to do is come up with a short-term forecast of where the markets are going to go. Let's face it, if I knew over the next six months where the market's going to go, I'd suddenly put all my money in the best-performing asset class. The problem is that most peoples' information isn't good enough to be able to predict the market over the next three to six months, and when they try to do that all they do is make a bunch of bets based on very noisy information, which produces very inconsistent performance over time. Our changes are based on a consensus fundamental analysis.

As an example of how the model works, what has it been saying this year? Where are you currently?

We started the year 80% in stocks, 10% in bonds, 10% in cash. We had moved into the 10% cash position in the middle of December and we stayed there until early February, and that's the first time the model's called for cash since the middle of '89. The cash came from our bond position prior to December.

What happened is that bond yields went down to below 6%, and given where we think cash is going to be over the next 10 years and given the lower risk of cash, cash all of a sudden looked like a reasonable asset to hold for a while. And it worked out that cash for that particular period of time outperformed bonds. And so we started the year at 80/10/10, stocks, bonds, cash. By early February the bond yields had kicked up and it pulled us 10% out of cash and back into bonds, so we were back to 80/20. And then by mid-March or so, we made a couple of very quick moves that added up to 20%, so by somewhere in March we were at 60% stocks. Bonds started the year with a yield of about 6% and when they moved up to 6¾% we started to like them again. Since then, we've been neutral relative to our average 60/40 mix.

So the model says the market right now is fairly valued?

Yes. We see nothing wrong with the current market and it's not to say that we don't think the market's going to fall or rise—we don't have a crystal ball. All we can say is that from a valuation standpoint, stocks don't look expensive to us.

Why not add other asset classes, such as small stocks?

Currently, it's not part of the strategy. One problem with small stocks is that the transaction costs are much higher, so you'd have to have a model where you were confident of being able to add value after the higher transaction costs. We actually do have a strategy for some of our institutional clients where we go between large and small stocks, and just for your information, with that strategy we think small stocks right now are quite attractive versus large stocks. But that is not within the strategy of this fund.

Many advisers recommend that individuals should simply make an asset allocation decision and stick with that for the long term. Why do you disagree with that approach?

Well, the real question is, "What should that allocation be?" And then I would ask, "Shouldn't that allocation be based on your expectation of the asset class returns over the long term?" And if those expected asset class returns change as prices change and prospects change, why shouldn't you as an intelligent, economic, rational person be changing your allocation?

And we feel that we can add short-term value by tactically moving around. I've talked about this being a long-term valuation process, but we also aim to add value in the shorter run. It's just a fact that when assets move out of equilibrium, they tend to go back on the shorter run, with the shorter-run being six months to three years.

What kind of risk would an investor be taking on?

Well, if you want to look at this as a stock fund, the average beta [returns relative to the stock market, with a beta of less than 1.0 implying less risk than the stock market] historically has been 0.6. Basically, it looks like a utility stock. [The fund has a somewhat higher average income than the S&P 500] because it typically has exposure to the bond market, which is an income market. Also, the fund's strategy has actually, historically, been very effective in protecting people on the downside, at least with big declines. Of course, there's no guarantee that it will always do that. Most of the big declines that have occurred since the model was started have been a result of things that were predictable that this model was able to avoid.