Understanding Investment Performance

By Thomas E. Nugent

Do you know what your mutual fund is doing?

I'll bet you don't! Investment performance has become the marketing and advertising tool of the mutual fund industry. There are various strategies employed by mutual fund companies to sell their mutual funds. The strategy used most often is to focus on those funds that have had the best performance. In recent years, Morningstar, a company that provides mutual fund analysis services, has introduced a rating system that incorporates both return and risk in gauging the overall performance of a mutual fund. The highest Morningstar rating is five stars while the lowest rating is one star. Using these ratings, mutual fund companies tout their highest rated funds while hiding their poorest rated funds.

There is a strange dichotomy in the performance reporting standards for professional investment advisors and mutual funds. The Association for Investment Management and Research has spent many years formulating strict reporting standards for investment advisors when making investment presentations to prospects and clients. Key among these guidelines is the requirement that the investment management firm construct an investment performance composite for all accounts with similar investment objectives. Advisors are strictly prohibited from selecting among their accounts and advertising their best performers. Furthermore, accounts that have closed, which may tend to have lower performance, must remain in the performance composite, further preventing investment advisors from sweeping bad news under the rug. These guidelines are designed to standardize the way investment performance is presented to large financial institutions and professional consultants, a relatively sophisticated audience. In such circumstances there appears to be little chance that a wayward portfolio manager would be able to pull a fast one on an unsuspecting investor by presenting only his best performing account.

Ironically, the investor group that most needs protection from unscrupulous investment practitioners is the individual investor, who cannot afford to hire an investment consultant and is not familiar with the basic fundamentals of AIMR reporting standards. To complicate matters, AIMR has not issued specific performance guidelines for mutual fund companies. Without marketing or advertising guidelines, mutual fund companies are free to engage in practices that are strictly prohibited for AIMR compliant individual investment advisors.

The mutual fund industry has successfully implemented a strategy to lure investors into buying their mutual funds by promoting their best performers, i.e., the four and five star rated mutual funds. All the individual investor has to see is the star rating and they want the fund. Little time is spent understanding how the Morningstar rating is determined or what it implies. Whether in television advertising, print media or company brochures, the Morningstar star ratings and past investment returns are prominently displayed while the "past performance is no guarantee of future results" disclaimer is relegated to the fine print.

Some fund companies have taken to the practice of aggressively introducing new funds in the hope that they will become five star portfolios. The fund company monitors the performance of these incubator funds and selects the ones that outperform. The poor performers are discarded and their performance numbers disappear forever. The winning funds become the darlings of the fund company. Sure enough, investors pour into these new performance winners, expecting the rewards that were bestowed on previous investors.

The marketing practices that promote fund performance as the basis for attracting shareholders has been enormously successful. The problem is that the dramatic changes in market value of these funds nullify the validity of the traditional performance measurement techniques that are used to qualify these funds for Morningstar star ratings.

There are two generally accepted techniques for measuring investment performance: time-weighted rates of return and dollar-weighted rates of return. Virtually all performance measurement is time-weighted. The reason for using a time-weighted rate of return is that it nullifies the effects of cash flows on investment returns. For example, portfolio managers often complained that cash flows into and out of a portfolio disrupted their ability to provide optimum investment returns. As a result, the time-weighted method of return calculation was adopted. In this technique, all effects of cash flows into and out of a portfolio are eliminated, allowing for a pure performance measurement of portfolio returns.

The dollar-weighted rate of return takes into account the cash flow into and out of a portfolio. In other words, using a dollar-weighted measure of return would answer the question of how well a portfolio manager did when the portfolio grew rapidly due to a substantial surge in money or new shareholders. To demonstrate the importance of using a dollar-weighted rate of return calculation the following example compares performance reporting for a hypothetical mutual fund using each calculation.

Time weighted rate of return:
Period 1:
Number of shareholders: 1,000
Initial share price: $10
Subsequent share price: $12
Period 1 performance: +20.0%

Period 2:
Number of shareholders: 10,000
Initial share price: $12
Subsequent share price: $10
Period 2 performance: -16.7%

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In order to calculate a dollar-weighted rate of return, it is necessary to weight the performance of each shareholder. Since there are ten times as many shareholders in Period 2 as there were in Period 1, the investment returns for Period 2 receive ten times the weight than does the performance in Period 1.

Period 1 performance: 20.0% x 1 = 20.0%
Period 2 performance: -16.7% x 10 = -167%

Dollar-weighted performance: -13.3%

So, instead of reporting a breakeven result under a time-weighted rate of return calculation, the fund would report a loss of 13.3% for both periods under a dollar-weighted rate of return. *

Under normal circumstances, the difference between time-weighted and dollar-weighted rates of return is small, but the difference can be large if cash flows or volatility of returns are large. Mutual funds have always used time-weighted calculations, which would be appropriate if they did not control cash flows. However, in this era of well-financed marketing departments whose job it to convince investors to invest in these funds, perhaps it is time to regard mutual funds as being at least partly responsible for the flow of money into hot funds and to make them accountable for reporting what happens to these investors afterward. If Morningstar were to rate all of the funds in their database on a dollar-weighted vs. a time-weighted basis, there probably would be a whole new cast of five star funds.

The point of this exercise is to demonstrate that published investment return figures do not always accurately reflect investment performance. More importantly, the use of investment performance by mutual fund marketers to attract investors to specific mutual funds after they have achieved unusually good performance can undermine the ability of an investor to achieve average success when making investment decisions. Broad diversification of investments in mutual funds, even if it leads to purchasing one or two star rated funds may provide a more rewarding strategy than creating a portfolio that only holds five star rated funds.

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