Style/Risk-Adjusted Performance

Taking investment style into consideration.

Angelo Lobosco

ANGELO LOBOSCO is a quantitative portfolio analyst at Fidelity Investments in Boston (MA 02109).

Modigliani and Modigliani [1997] have done much to increase investors' awareness that risk, in addition to total return, must be considered when assessing the performance of an investment fund. Their work is a timely contribution to the literature on this subject.

An equation Modigliani and Modigliani use to calibrate all funds against the same benchmark is:

$$RAP(i) = (\sigma_M/\sigma_i)\ (r(i) - r_f) + r_f \qquad (1)$$

where

$RAP(i)$ = annualized risk-adjusted performance of fund i;
σ_M = annualized standard deviation of "market" returns;
σ_i = annualized standard deviation of returns for fund i;
$r(i)$ = average annual return for fund i; and
r_f = annual risk-free return.

One can see that this calculation calibrates the performance of all funds against the "market" portfolio through the use of σ_M. If the fund's returns are more (less) volatile than those of the market, the fund's excess return, $r(i) - r_f$, is scaled down (up) accordingly. This is one of the strengths of this measure; it is very appealing to use the same benchmark for all funds.

It is inevitable, however, that this measure will