

# Are Vanguard's Managers Good Stock-Pickers or Style-Pickers?

Kenneth S. Reinker and Edward Tower

**W**e are grateful to Jared Kizer [2005] for explaining the difference in returns between our synthetic Vanguard managed and index portfolios by examining differences in their investment styles.

## RETURNS TO STOCK-PICKING SKILL

Kizer leads us to an additional discovery that is worth noting. Exhibit 5 in Kizer [2005] shows that the return premium of the managed portfolio (over the riskless return) is less sensitive than the index portfolio to the equity premium (over the riskless return). This is because the managed portfolio holds more of the riskless asset. The return premium of the managed portfolio also has a higher coefficient on HML (the return on high value stocks minus that on low value stocks), which indicates its greater exposure to value stocks. Finally, the return premium for the managed portfolio has a positive coefficient on the size factor, SMB (the return on small stocks minus that on big stocks), while the index portfolio has a negative one, reflecting overweighting of smaller stocks by the managed portfolio and underweighting of smaller stocks by the index portfolio.

What would the returns to the two portfolios have been if the equity premium and the value and size premiums had all been zero over the entire period, so neither portfolio had been rewarded or punished for weighting its asset selection more toward the riskless asset, or value, or smallness?

**KENNETH S. REINKER** is a student at Harvard Law School in Cambridge, MA.  
[kreinker@law.harvard.edu](mailto:kreinker@law.harvard.edu)

**EDWARD TOWER** is a professor of economics at Duke University in Durham, NC.  
[tower@econ.duke.edu](mailto:tower@econ.duke.edu)

Holding the equity premium and the premiums on the return to size and value all at zero, our Vanguard synthetic index portfolio returns  $-0.21\%$  per year while our Vanguard synthetic managed portfolio returns  $-0.48\%$  per year. These are the alphas for the two portfolios. Thus, the return disadvantage of the managed portfolio is 0.27 percentage point per year.

We calculate that the average annual expense ratio for our index portfolio is 0.254% and the average annual expense ratio for our managed portfolio is 0.494%. Thus, the excess annual expense ratio of our managed portfolio is 0.24 percentage point. This is slightly below the annual shortfall of the managed portfolio's performance relative to the index portfolio over the period, holding market return and the size and value premiums at zero. The remaining return disadvantage of the managed portfolio is 0.03 percentage point per year.

This indicates that any excess return of the managed portfolio due to wise stock-picking is more than offset by the extra transaction costs it incurs. Therefore, this excess return is, at best, small, and quite possibly non-existent.

The difference between Kizer's alphas is not significantly different from zero, so perhaps Kizer was wise not to emphasize it. All we can say is that his results are consistent with the belief that the return to stock-picking does not compensate for the increased transaction costs that it imposes.

Bogle [2004] has argued that investors should focus on the *cost matters hypothesis* when they decide where to put their money. As he memorably puts it: "In the fund business, you get what you don't pay for." Kizer's work reinforces this view, while also emphasizing the role that style and size premiums play in fund returns.

## WHY IS THE MANAGED PORTFOLIO LESS RISKY THAN THE INDEX PORTFOLIO?

Kizer's framework also points the way toward solving the puzzle of why our managed portfolio is less risky than our index portfolio. We calculated annual returns from the data in his Appendix A and the regressions in his Exhibit 5, leaving out the error terms. These are the returns that would have been offered by portfolios that maintained their weightings on size and value (and the equity premium) at the average levels that Kizer calculates for the index and the managed portfolios. The standard deviations of nominal returns for these constant-weight index and managed portfolios are 16.0% per year and 13.5% per year, respectively, com-

pared to 15.9% and 14.2% for the actual index and managed portfolios.

Thus, the managed funds are actually more volatile than their average choice of style predicts. Style choice therefore explains more than all of the reduction in volatility in going from the index to the managed portfolio, with nothing left for stock-picking to explain. Indeed, if anything, stock-picking seems to increase managed funds' volatility. Perhaps the managers are bad stock-pickers, or perhaps the investors in managed funds make bad choices.

## PRESCIENT STYLE CHOICES?

To test whether the managed portfolio acts as if it is prescient—that is, whether the managed portfolio switches into smaller and more value-oriented stocks just before those stock prices rise—we postulate that at the beginning of each year the holding of small stocks relative to big ones and the holding of high-value stocks relative to low-value stocks is an increasing linear function of the subsequent return premiums: SMB and HML.

We test this model using the second of Kizer's regressions in his Exhibit 5. The dependent variable is the return on the managed portfolio minus the return on the one-month Treasury bill. In addition to Kizer's three right-hand side variables— $R_m - R_f$ , SMB, and HML—we include  $SMB^2$  and  $HML^2$ . Both of these should have positive coefficients.

None of the squared terms is significantly different from zero at the 10% level in a two-tailed test. The one variable close to significance is  $SML^2$ , which has a negative coefficient and a t-statistic of  $-1.80$ . Thus, we reject the notion that fund managers are prescient and wisely manipulate style to take advantage of style anomalies. Rather, average style choice seems to drive the superior returns of the managed portfolio, even with what appears to be, if anything, a tendency for managers to make erroneous style adjustments.

## HAS THE STOCK MARKET BECOME MORE EFFICIENT?

In Reinker and Tower [2004], we conjectured that perhaps markets had become more efficient over time, leading to poorer performance by managed funds. But we did not flesh out this idea. To our satisfaction, Kizer has done so and at least partially confirmed it. His Exhibit 6 shows that the premiums on returns for both smallness and

value declined markedly from our first 15-year period to the last, thereby leading to the relative deterioration of managed fund performance. It also lends some support to the conclusion that markets have become more efficient with regard to both size and value.\*

Thus, Kizer's analysis indicates that the return to stock-picking skill is not enough to offset the additional transaction costs of the managed portfolio. The superior performance of Vanguard's managed portfolio is due entirely to its tendency to overweight small stocks and value stocks more heavily than the index portfolio at a time when stocks with these two characteristics outperformed the market.

So, it is style-picking skill rather than stock-picking skill that underlies the superiority of the managed portfolio in our study, and over time these style-picking skills seem to have become less important. If we were to see the style premiums and discounts disappear in the future, we would see the superior performance of managed funds evaporate as well.

## CONGRATULATIONS AND A QUERY

We close by remarking how extraordinary it is that over the entire period we studied the Vanguard managed portfolio outperformed not only the Vanguard index portfolio but the Wilshire 5000 as well. We are curious to know whether other fund families can make the same claim.

Or is it only Vanguard that has compelled better performance from its managed portfolio than its index portfolio by so meticulously cleaning from the hulls of its managed mutual funds the barnacles of high expenses and transaction costs, and so masterfully setting their courses to capture the fair winds that have propelled small and value stocks?

## ENDNOTE

Thanks to William Bernstein and Jared Kizer for helpful comments.

\*Kizer in private communication with us raises an objection to a strong statement that markets have become more efficient. He suggests that a reduction in a premium over time does not necessarily indicate improved market efficiency because it might be a random event. We agree a test is needed to see if the shrinkage in the small and value premiums is significant, so we somewhat qualify our belief that the market has become more efficient.

Of course, others have made the argument that the stock market has become more efficient over time. Malkiel [2003,

pp. 197-198] writes that shortly before Benjamin Graham, the father of fundamental security analysis, died in 1976, he was quoted in an interview in the *Financial Analysts Journal* as saying that markets had become sufficiently efficient that he doubted elaborate techniques of security analysis would still generate sufficiently superior selections to justify their cost.

One issue in Reinker and Tower [2004] needs clarification. The errors we identified in Morningstar's data in our endnote 7 were errors in the January 2004 edition of the Morningstar Principia Pro disk that were corrected in the April 2004 edition, although Morningstar does continue to record the dates of inception of funds but not the dates when they were acquired by Vanguard.

## REFERENCES

Bogle, John C. "As the Index Fund Moves from Heresy to Dogma...What More Do We Need To Know?" Gary M. Brinson Distinguished Lecture, Bogle Financial Markets Research Center, April 13, 2004. Available at [http://www.vanguard.com/bogle\\_site/bogle\\_speeches.html](http://www.vanguard.com/bogle_site/bogle_speeches.html).

Kizer, Jared. "Index Fundamentalism Revisited: Redux." *The Journal of Portfolio Management*, Winter 2005, pp. 112-119.

Malkiel, Burton G. *A Random Walk Down Wall Street*. New York: W.W. Norton & Co., 2003.

Reinker, Kenneth S., and Edward Tower. "Index Fundamentalism Revisited." *The Journal of Portfolio Management*, Summer 2004, pp. 37-50.

To order reprints of this article, please contact Ajani Malik at [amalik@iijournals.com](mailto:amalik@iijournals.com) or 212-224-3205.

©Euromoney Institutional Investor PLC. This material must be used for the customer's internal business use only and a maximum of ten (10) hard copy print-outs may be made. No further copying or transmission of this material is allowed without the express permission of Euromoney Institutional Investor PLC. Copyright of Journal of Portfolio Management is the property of Euromoney Publications PLC and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.

The most recent two editions of this title are only ever available at <http://www.euromoneyplc.com>