The Performance of Commingled Real Estate Funds: Does the Choice of Measure Have an Effect?

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This study examines the rankings of commingled real estate funds (CREFs) using seven different performance measures (two non risk-adjusted and five risk-adjusted). Non risk-adjusted rankings are believed to be significantly different from risk-adjusted rankings. Therefore, the ranking of CREF performance without adjusting for risk would be very misleading. The performance measures used are as follows:

Non Risk-adjusted

1. average (mean) return,
2. five-year cumulative return,

Risk-adjusted

1. Sharpe measure (return minus the return on 91-day T-Bills (considered risk-free) divided by the standard deviation of the returns),
2. Treynor measure using the Russell/NCREIF total index as the benchmark (return minus the risk-free rate per unit of systematic risk [as estimated by beta]),
3. Treynor measure using the average return on the CREFs in the sample as the benchmark,
4. Jensen measure using the Russell/NCREIF total index as the benchmark (the intercept [alpha] from a regression of market returns above/below the risk-free rate against a particular CREF's returns above/below the risk-free rate), and
5. Jensen measure using the average return on the CREFs in the sample as the benchmark.

Quarterly data on the total returns of the CREFs were taken from the Townsend Real Estate Universe (TREU) which was obtained from the Townsend Group, an institutional real estate consulting firm. Originally the study examined the 1988 through 1992 period (110 funds), but over 85% of the CREFs had mean returns less than the mean return on 91-day T-Bills (the proxy for the risk-free rate). Therefore, the 1986 through 1990 period was also examined (42 funds) in order to obtain a sufficiently large sample of firms with positive Sharpe and Treynor measures (negative values of these measures have no meaningful interpretation based on finance theory).

In addition, this study attempted to rank CREFs using currently popular methods of correcting accounting/appraisal based real estate returns.

Results

This study confirms that non risk-adjusted and risk-adjusted performance rankings are significantly different. The results indicate that it makes no difference whether the average (mean) return or the cumulative return is used as the performance measure, since they are almost perfectly correlated. However, significant differences in performance rankings occur when the Sharpe, Jensen, and Treynor measures are considered. These results suggest that, unlike for open-end mutual funds, the use of different performance measures results in significantly different rankings. However, investors should be cautious in interpreting performance rankings using the different risk-adjusted methods. The study shows that currently the only usable risk-adjusted performance measure is some form of the Jensen measure. However, the choice of the appropriate benchmark or benchmarks to use in computing the Jensen alpha measure remains problematic. Finally, the results indicate that the currently popular methods of correcting accounting/appraisal based returns can not be practically applied when evaluating the performance of large numbers of funds. Using these methods resulted in meaningless results for over half the CREFs, since infinite or very large returns resulted from the correction technique(s) and returns per unit of risk were unbelievably large!