

Performance Persistence of Experienced Mutual Fund Managers

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This study examines the performance of 93 fund managers over the 10 year period 1986 through 1995 using relative percentile ranks based on quarterly compounded, annual total returns measured against funds with the same investment objective. On average, managers with 10-year track records at the same fund do not perform better than managers with shorter track records. Also, for these experienced managers, superior performance in one five-year period is not predictive of superior performance over the next five years. However, inferior performance persists, particularly for funds with above average expense ratios.

I. INTRODUCTION

Tough guys finish first, notes the ad for a popular mutual fund. Another ad touts a fund's number one ranking, along with its management's experience. Still another reminds the investor that, while past returns are not indicative of future returns, their fund has 'beaten' other similar funds several years in a row. A casual survey of *Barron's* or other investors' publications suggests that a mutual fund's ranking versus its peers is of great importance. While numerous studies have examined the issues of relative fund performance and performance persistence by comparing mutual fund returns, few have directly examined the relative performance rankings of individual mutual fund managers.

This study measures the performance of experienced fund *managers* and their ability to demonstrate consistent performance with the same fund over a ten-year period. By studying managers with this length of tenure at a single fund, the impact of changes in performance related to different styles of individual fund managers is reduced. The intuitively appealing percentile ranking measure used by *Morningstar* and other mutual fund rating services is the methodology used in this study. While total return is important, investors may use performance rank as a proxy for explicit comparisons of total return. The performance measure is the rank of each manager's annual returns relative to all other managers within the same investment objective. Measuring performance in this way controls for the

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general level of risk assumed by the investor in the fund. Managers have the ability to define distinct risk levels within objectives, so the analysis controls for exposure to systematic risk and to the risk associated with a style of investment strategy. Finally, by placing more emphasis on annual performance than on total return over a specific period, this methodology provides evidence regarding the consistency of manager performance over time.

This study provides evidence on the following research questions. One, as a group, do managers with 10-year track records at the same fund consistently outperform their peers? Two, are mutual fund performance rankings in one five-year period predictive of the rankings over the next five-year period?

II. LITERATURE REVIEW

A number of recent studies have examined the issue of performance persistence in mutual funds. Grinblatt and Titman (1992) analyze performance of 279 funds over the period of 1975 to 1984 using a benchmark technique and find evidence that performance differences between funds persists over time. Hendricks, Patel, and Zeckhauser (1993) study 165 no-load growth-oriented funds over the period 1974 to 1988 and obtain similar results. In a study of 728 mutual fund returns over the period 1976 to 1988, Goetzman and Ibbotson (1994) find that two-year performance is predictive of performance over the successive two years. Volkman and Wohar (1995) extend this analysis to examine factors that impact performance persistence. Their data consists of 322 funds over the period 1980 to 1989, and shows performance persistence is negatively related to size and negatively related to levels of management fees.

Studies of performance persistence in mutual funds are not without contrary evidence. Carhart (1997) shows that expenses and common factors in stock returns such as beta, market capitalization, one-year return momentum, and whether the portfolio is value or growth oriented "almost completely" explain short term persistence in risk-adjusted returns. He concludes that his evidence does not "support the existence of skilled or informed mutual fund portfolio managers" (Carhart, 1997, p. 57). In the Kahn and Rudd 1995 study of 300 equity funds and 195 bond funds between 1983 and 1993, only the bond funds show evidence of persistence. In an article in this issue, Detzel and Weigand (1998) use a regression residual technique to control for the effects of investment style, size and expense ratios. They find, after controlling for these variables, no evidence of performance persistence.

Two other studies have used performance ranks. Dunn and Theisen (1983) rank the annual performance of 201 institutional portfolios for the period 1973 through 1982 without controlling for fund risk. They found no evidence that funds performed within the same quartile over the ten-year period. They also found that ranks of individual managers based on 5-year compound returns revealed no consistency. Bauman and Miller (1995) studied the persistence of pension and investment fund performance by type of investment organization and investment style. They employed a quartile ranking technique because they noted that "investors pay particular attention to consultants' and financial periodicals' investment performance rankings of mutual funds and pension funds" (Bauman & Miller, 1995, p. 79). They found that portfolios managed by investment advisors showed more consistent performance (measured by quartile rankings) over market cycles and that funds managed by banks and insurance companies showed the least consistency. They suggest that this result may be caused by a higher turnover in the decision-making structure in these less consistent

funds. This study controls for the effects of turnover of key decision makers by restricting the sample to those funds with the same manager for the entire period of study.

III. DATA AND METHODOLOGY

Our sample consists of mutual funds selected from Morningstar's Mutual Funds OnDisc[®] database for the years 1986 through 1995. This source allowed the identification of fund managers for each fund, each year of the test period.

A. Sample Selection

The database was screened for funds with the following characteristics:

1. Funds with at least one year (12 months) of total returns covering the calendar years 1986 through 1995.
2. The sample includes only "identifiable" managers. It does not include funds which list "management team" or "multiple managers" as manager because our objective is to draw inferences about the performance of managers who are known to investors.
3. To insure that there are enough funds to produce meaningful performance ranks within investment categories in a given year, only categories that contain at least 10 funds over the entire 10-year period are included in the study.
4. Funds that had a change in objective or investment style over the period are not included in the sample.

The final sample consists of 791 mutual funds. The funds represent the following seven investment objective categories defined by Morningstar:

1. Growth, which seeks capital appreciation by investing in equity with above-average earnings potential.
2. Aggressive growth, which seeks rapid growth of capital by making investments with greater than average risk, leveraged positions, and high turnover.
3. Balanced, which invests in fixed proportions of stocks and bonds.
4. Equity-Income, which invests in equity securities with above-average yields.
5. Growth and Income, which invests in equity securities with above-average yields with some potential for growth appreciation.
6. Small Company, which invests in stocks of small companies, as determined by market capitalization or the value of assets.
7. Specialty Precious Metals, which invests in equities of companies in the exploration, distribution, or processing of precious metals.

From this sample, all funds listing the same manager for the 1986–1995 period are identified. This group of 93 funds and their "experienced" managers is the subject of this study, and their performance is measured relative to the entire sample of 791 funds.

B. Performance Analysis

Our analysis consists of four parts. First, the relative performance is measured for all 791 funds. Second, the performance of the group of experienced managers is compared to all others. Third, the performance persistence of the group of experienced managers over two successive five-year periods is compared and finally, the impact of expense ratios on our results is examined.

To measure relative performance, compound annual returns are computed from monthly returns for each of the 791 funds in the sample. Percentile rankings are then assigned to each manager, relative to other funds within the same investment category, for each year. With this measure, higher percentile ranks indicate superior performance. For example, the manager of a balanced fund in the 75th percentile has bettered 74 percent of all fund managers with the same investment objective that year, regardless of the age of the competing funds or the length of tenure of their managers. It is important to note that the percentile ranks are computed using all managers in the investment category for which there are data. While the focus of the study is the performance of managers with a 10-year track record, performance is measured against all peers within their fund's investment category.

Next, the five- and ten-year average performance percentiles based on annual rankings for each fund are computed. The measure, referred to throughout the paper as the "mean performance rank," or MPR, is the average rank achieved by a manager over a specific number of years. "Average MPR" refers to the arithmetic mean MPR for a group of funds over a specific number of years. For example, we estimate the MPR of each of the 93 managers with 10 years experience at the same fund. Each of these 93 MPRs represents a manager's average ranking over the 10-year period. So, the average MPR of 48.7 shown in Table 1 represents the overall level of performance for these 93 managers, over the 10-year period, relative to the other managers in the sample.

In the first test, the sample of 10-year managers is divided into two groups by their MPR over the first five years of the sample period (1986–1990). Managers with MPRs above the 50th percentile are considered superior. Those at, or below, the 50th percentile are considered inferior performers. Next, the MPRs of these two groups are calculated over the subsequent five years. If performance relative to their peers is non-random, the average MPRs of the superior (inferior) performers should continue to be greater (less) than 50 in the 1991–1995 period.

Dividing the sample into two groups may distort the data because funds with marginally poor performance are in the same category as funds with extremely poor performance, and vice versa for superior performers. Therefore, our tests are repeated using extreme measures of superior and inferior performance. The managers with the 10 highest MPRs are designated superior, while those producing the 10 worst MPRs are deemed inferior. Fund advertisements would certainly tout any manager among the top ten performers as likely to repeat their superior performance.

Finally, to test the importance of expense ratios in predicting performance persistence, the performance of subgroups of funds with above, and below, average expense ratios is examined. Mutual fund performance studies have shown that expense ratios are inversely related to performance. Golec (1996) concludes that investors should avoid funds with large operating and management fees. Elton, Gruber, Das, and Hlavka (1993) and Ippolito (1989) provide evidence that funds with lower fees outperform funds with higher fees. Gruber

(1996) finds that the expenses of top performing funds are not different than for the funds with average performance, while fees of the poorer performers tend to be above average. Also, fees for better performers tend to increase more slowly than fees of poorer performers.

IV. RESULTS

Test results and implications are divided into three categories. First, the performance of the group of experienced managers is compared to the performance of all others in the sample for the entire 10-year period. Next, performance persistence of the experienced managers is analyzed for two 5-year periods within the test period. Finally, expense ratios are examined to identify their relationship with performance and performance persistence.

A. Performance of Experienced Managers Relative to Others

Table 1 shows the range of annual performance rankings, mean performance rankings, and expense ratios for the sample. The sample of managers with at least 10 years tenure at one fund (10-year managers) consists of 93 funds with a mean tenure of 17.4 years. The mean tenure for the control sample of 698 funds is 6.4 years. The range of 10-year MPRs is narrower for the 93 managers with at least 10 years of tenure with the same fund compared to all other funds. If managers with longer tenure at the same fund are able to outperform those with shorter track records, their 10-year average MPR should be significantly above 50 and significantly different from the average MPR of the sample group. However, the average MPR of experienced managers, 48.7, is not different from 50 ($t = -1.07$) and the average MPRs of the two groups are not significantly different ($t = -0.56$). Similarly, the mean expense ratios of the two groups of funds are not significantly different ($t = 0.02$).

TABLE 1
Performance for 791 Mutual Funds including Performance of 93 Managers with a Minimum of 10 Years Tenure with the Same Fund (1986–1995)

Percentile ranks	Managers of the same fund for at least		Difference Ten year vs. Others (<i>p</i> -value) ¹
	10 years <i>n</i> = 93	All other funds <i>n</i> = 698	
Range of 10-year mean performance ranks	7.2 to 73.2	0.33 to 90 ²	—
Average 10-year mean performance ranks	48.7 (0.1407) ³	49.5 (0.1144)	-0.8 (0.5608)
Average 10-year mean fund expense ratio	1.342%	1.339%	0.003% (0.9828)
Average manager tenure	17.4 years	6.4 years	—

Notes: Annual performance ranks are determined by ranking annual Morningstar Total Returns within each investment objective.

¹ The *p*-value indicates the likelihood that the two variables have equal population means. Thus, significant differences are indicated by low *p*-values (i.e., less than .05 for significance at the 5 percent level).

² These extremes are not unlikely because the minimum fund performance period is one year. In an investment objective with 300 funds, the fund in *next* to last place would have a performance rank of 0.33.

³ Value in parentheses is significance level of *t*-test, H_0 : Average MPR = 50.

Similarly, if experienced managers have any advantage over their peers, they should obtain a significantly higher number of superior annual rankings when their annual returns are ranked among the returns of 698 funds whose managers had less experience. However, there is no evidence of consistently superior performance. Of the 930 possible annual percentile rankings of experienced managers (93 funds times 10 annual performance rankings), only 430 were greater than the 50th percentile and 500 were at, or below, that level. If performances were random, the probability that there would be *at most* 430 annual superior performances out of 930 is only 1.18%. These results suggest that managers with lengthy experience at a fund have no particular ability to outperform other mutual funds within the same objective.

The results suggesting that experienced managers, on average, perform no better than their less experienced peers for the sample period are particularly meaningful because our data set of 10-year managers imposes a survivorship bias on the test. Malkiel (1995) provides evidence of positive return survivorship bias in equity mutual funds. He reports the mean annual returns of all general equity funds for the period 1982–1992 were significantly greater for funds surviving the 1983–1992 period than for those which failed during the period (no failures were counted in 1982). However, there is no evidence regarding the direction of the performance bias that *managers* surviving for 10 years with the same fund may impart on our tests. If managers are retained (dismissed) for their ability to demonstrate consistent superior (inferior) performance, the sample of experienced managers should contain more superior performers than inferior ones over the 10-year period. One interpretation of our result is that managers are not retained (dismissed) for demonstrating superior (inferior) performance.

B. Performance Persistence of Experienced Managers

The results from our analysis of 10-year managers provides evidence that, overall, experienced managers do not outperform their less experienced peers. The following tests are designed to provide evidence about the ability of superior experienced managers in one period to repeat their superior performance in the next. The performance persistence of experienced inferior managers is also examined.

Superior Performance

The results of tests of rankings persistence over two successive five-year periods are reported in Table 2. As before, performance is determined relative to the 50th percentile. Managers whose MPR over the period 1986–1990 was greater than the 50th percentile are deemed superior, while managers with MPRs equal to, or less than, the 50th percentile are considered inferior. As shown in Table 2, Panel A, 43 of the 93 managers averaged above the 50th percentile, relative to all managers in the same investment category in our sample, over the period 1986–1990. The average MPR for these superior performers is 60.3, significantly greater than 50 at the 1% level. In the subsequent period, however, the average MPR of these superior managers fell to 51.1, an average MPR which is not significantly different from 50, and which represents a statistically significant decline of 9.2 points ($t = 3.78$).

The number of managers demonstrating superior performance for the period 1991–1995 also dropped. Only 23 of the 43 funds which were rated superior in the prior period

TABLE 2
Test of Persistence in Performance Rankings of Managers with a
Minimum of 10 Years Tenure at the Same Fund (1986–1995)

	<i>Period 1</i> 1986–1990	<i>Period 2</i> 1991–1995	<i>Difference</i> (<i>p</i> -value)
Panel A: Superior managers: MPR > 50			
Superior Managers 1986–1990	60.3	51.1	–9.2
5-year Average MPR	(0.0001) ¹	(0.6036)	(0.0003)
Number of Superior Managers of 93	43 (0.7965) ²	23 (0.3804) ³	–20
Number of Annual Ranks > 50 of 215 ⁴	144 (0.0001) ⁵	109 (0.4458)	–35
Panel B: Inferior managers MPR ≤ 50			
Inferior Managers 1986–1990	39.4	46.0	6.6
5-year Average MPR	(0.0001)	(0.0360)	(0.0231)
Number of Inferior Managers of 93	50 (0.7330)	27 (0.3359) ³	–23
Number of Annual Ranks ≤ 50 of 250	166 (0.0001)	139 (0.0438)	–27

Notes: MPR is the mean annual performance rank for each manager for the time period specified.

¹ For MPRs, figure in parentheses represents the significance level associated with the two-tail t-test, $H_0: MPR = 50$. For differences in MPRs between periods, value in parentheses represents the significance level associated with two-tail t-test, $H_0: MPR_1 - MPR_2 = 0$.

² Probability of observing *at least* n successes in 93 trials.

³ 23 of the original 43 superior managers rated superior performance over the period 1991–1995. 27 of the original 50 inferior managers rated inferior performance over the subsequent period. P-value in parentheses represents the probability, P , associated with binomial test, $P =$ Probability of observing *at least* n successes in 43 trials for superior and 50 trials for inferior managers.

⁴ Numbers of Annual Performance Ranks satisfying condition out of 215 possible ranks for 43 superior managers in each 5-year period.

⁵ Figure in parentheses represents probability, P , associated with binomial test, $P =$ probability of observing *at least* 144 successes in 215 trials. Same test is conducted for inferior managers.

had MPRs higher than 50 in the subsequent period. Based on the normal approximation of the binomial distribution, there is a 38.15% probability that of the 43, *at least* 23 would have repeated as superior managers if the results were random. The implication is that there is at least a four in ten chance that 23 managers would demonstrate superior performance in the 1991–1995 period. The ability of 23 managers out of 93 to finish above the 50th percentile for two consecutive periods is also consistent with even odds (50% likelihood in the first period, times 50% in the second, times 93 managers equals 23.25 expected occurrences).

There are 215 annual performance ranks for the 43 experienced managers in the period 1991–1995 (43 managers times 5 years). Only 109 annual performance ranks by these superior managers were greater than 50 during this period, compared to 144 in the period 1986–1990. Based on the binomial distribution, 109 successes out of 215 trials is not unlikely if the process is random, suggesting that the evidence on the drop in MPRs reported above was not the result of a couple of particularly poor managers.

Inferior Performance

The evidence suggests that superior management performance over a five-year period is not predictive of continued superior performance over the subsequent five-year period. Is inferior performance predictive of continued inferior performance?

Table 2, Panel B presents the analysis of the 50 managers with inferior performance over the 1986–1990 period. The average MPR, which was 39.4 over the initial period, improved to 46.0 in the latter period. The increase of 6.6 points is statistically significant at the 5% level, ($t = 2.32$, two-tail test). However, the average MPR of the inferior performers remains a statistically significant 4.0 points below the 50th percentile in the subsequent period ($t = -2.11$, two-tail test, significant at 5%). So, while the performance of the inferior managers reverted toward the 50th percentile in the subsequent period, it remained below average relative to all other managers.

A comparison of the mean performance of superior managers and inferior managers during the 1991–1995 test period reveals a convergence to average performance. The average MPRs for inferior managers, 46.0, is different than that of the superior managers, 51.1, in the latter period at the 10% significance level ($t = 1.82$, two-tail test). Twenty seven of the 50 managers with inferior performance in the first period remained inferior performers in the second period. This is consistent with random performance as, under the binomial distribution, the likelihood that a minimum of 27 inferior managers would repeat is 33.59%. However, there is a low probability, 4.4%, that as many as 139 of the annual ranks of this group could be inferior in the subsequent period. That is, as a group, these managers had more individual years of inferior performance that would have been predicted by chance.

The results of Table 2 show that managers outperforming a majority of their peers from 1986 through 1990 failed to repeat their superior performance in the subsequent 5 year period. The performance of managers who under-performed their peers in the earlier period improved in the subsequent period, but remained inferior to the subsequent performance of superior managers. The results suggest that, while the performance of superior managers reverts toward the 50th percentile, the performance of inferior managers does not fully revert.

Performance Extremes

When experienced managers with the 10 highest MPRs are designated superior, and those producing the 10 worst MPRs are deemed inferior, the results of these tests, shown in Table 3, are qualitatively identical to those reported when dividing the sample relative to the 50th percentile. The average MPR for the superior group fell from 71.7 to 51.2, a statistically significant drop of 20.5 points. Of the 10 superior managers in the period 1986–1990, only 1 fund repeated their top ten performance in the subsequent period. The ability of 1 fund of the 93 to rank in the top ten for two consecutive periods is consistent with a random performance process. Only six of the top ten funds for 1986–1990 subsequently had MPRs above 50, and only 25 of the 50 annual observations were above the 50th percentile over the 1991–1995 period. These results strengthen the evidence against performance persistence by showing that even top management performance over a five-year period, on average, is not predictive of continuing above average performance in subsequent periods.

TABLE 3
Test of Persistence in Performance Rankings of Managers with a
Minimum of 10 Years Tenure at the Same Fund (1986–1995)

	<i>Period 1</i> 1986–1990	<i>Period 2</i> 1991–1995	<i>Difference</i> (<i>p-value</i>)
Panel A: Superior Managers Top Ten MPRs			
Superior Managers 1986–1990	71.7	51.2	-20.5
5-year Average MPR	(0.0001) ¹	(0.2389)	(0.0005)
Number of Managers in Top Ten	10	1	-9
	—	—	
Number of Annual Ranks > 50 of 50 fund years	44	25	-19
	(0.0001) ²	(0.5561)	
Panel B: Inferior Managers Bottom Ten MPRs			
Inferior Managers 1986–1990	22.3	40.6	18.3
5-year Average MPR	(0.0001)	(0.0564)	(0.0029)
Number of Managers in Bottom Ten	10	3	-7
	—	—	
Number of Annual Ranks ≤ 50 of 50	43	29	-14
	(0.0001) ²	(0.1611)	

Notes: MPR is the mean annual performance rank for each manager for the time period specified.

¹ For MPRs, figure in parentheses represents the significance level associated with the two-tail t-test, $H_0: MPR = 50$. For differences in MPRs between periods, value in parentheses represents the significance level associated with two-tail t-test, $H_0: MPR_1 - MPR_2 = 0$.

² The probability of observing at least n successes in 50 trials.

The results for the 10 worst performers are also consistent with the results of our prior tests. The average MPR of the ten worst performers improved by 18.3 points, a statistically significant improvement, but performance in the subsequent period is significantly less than the 50th percentile at the 10% level ($t = 1.95$, two-tail test). Performance of superior managers was greater than performance by inferior managers in the subsequent period by 10.6 points, which, like our earlier results, is significant at the 10% level ($t = 1.67$, two-tail test). These results provide strong evidence that the performance of even top managers reverts to average, and marginal evidence that the performance of the worst managers does not fully mean revert.

C. Performance Persistence and Expense Ratios

In this section, the analysis is designed to determine to what extent expense ratios are associated with the performance rankings of the experienced managers. The results in Table 4 are grouped by time period. As shown in Table 4, Panel A, expense ratios across funds are significantly lower for superior funds, averaging 0.47% less than expense ratios of inferior funds over the period 1986–1990 ($t = 3.96$, two-tail test) and 0.727% lower for the period 1991–1995, significant at the 5% level ($t = 4.37$, two-tail test). This result is consistent with evidence provided by Volkman and Wohar (1995), and others, who find evidence that funds with low management fees show persistent positive performance while those with high fees show persistent negative performance. Panel A in Table 4 also pro-

TABLE 4
Relationship between Fund Expense Ratio and Performance Persistence for
Managers with a Minimum of 10 Years Tenure with the Same Fund (1986–1995)

	<i>Period 1</i> 1986-1990	<i>Period 2</i> 1991-1995	<i>Difference</i> (<i>p-value</i>)
Panel A: Mean expense ratios of 93 experienced managers			
Superior managers, n = 43 5-year expense ratio	1.011%	0.978%	0.033% (0.4168)
Inferior managers, n = 50 5-year mean expense ratio	1.481%	1.705%	-0.224% (0.2291)
Difference (<i>p-value</i>)	-0.470% (0.0001)	-0.727% (0.0001)	
<i>5-year Performance/Fund Expenses: 1986–1990 by fund</i>	<i>Average MPR</i> <i>Period 1</i> 1986–1990	<i>Average MPR</i> <i>Period 2</i> 1991–1995	<i>Difference</i> (<i>p-value</i>)
Panel B: Impact of fund expense ratios on manager performance persistence			
Superior Performance/ High Expense, n = 8 ¹	62.4 (0.0054) ¹	42.7 (0.1341) ²	-19.7 (0.0027) ⁴
Superior Performance/ Low Expense, n = 35	59.8 (0.0001)	53.0 (0.1919)	-6.80 (0.0243)
Inferior Performance/ High Expense, n = 19	34.7 (0.0001)	37.0 (0.0002)	2.3 (0.5954)
Inferior Performance/ Low Expense, n = 31	42.3 (0.0006)	51.6 (0.4604)	9.3 (0.0028)

Notes: MPR is the mean annual performance rank for each manager for the time period specified.

¹ Number of firms of 93 satisfying condition. T-test, degrees of freedom = $n \times 5 - 1$ years.

² P-value from t-test under the null hypothesis that the average MPR is different from 50.

³ P-value from two-tail t-test under the null hypothesis that the averages of $MPR_1 - MPR_2 = 0$.

vides evidence that for both superior and inferior performers, there is no significant change in expenses as a proportion of net asset value over the ten-year period.

Results in Panel B of Table 4 are divided such that, as before, superior managers had MPRs greater than the 50th percentile for the period 1986–1990, while all others are deemed inferior managers. Expense ratios are divided into High and Low categories. Expense ratios were listed as High if the fund's ratio was greater than the full sample mean (1.37 percent) during the period 1986–1990, and listed as Low, otherwise. Panel B shows that, regardless of expense level, performance of superior managers reverts to levels near 50 in the subsequent period. However, the average MPR of the Low expense funds in the 1991–1995 period is 10.3 points greater than the average MPR of High expense funds ($t = 1.93$, two-tail test, significant at 10%).

The performance of inferior managers with Low expense ratios improves to average for 1991–1995, while the average MPR of those with High expense ratios remains significantly below average at the 5% level. The average MPR of Low expense funds during 1991–1995 is significantly greater than the performance of the High expense funds by 14.6 points at the 5% level ($t = 3.60$, two-tail test). The evidence presented in Table 3 suggests

that, not only do successful managers, on average, fail to reproduce their prior success relative to their peers, but managers of funds with relatively high expense ratios tend to perform, on average, more poorly than their peers in subsequent years.

V. CONCLUSION

Using relative annual performance ranks, this study finds no evidence that experienced mutual fund managers outperform their less experienced peers. Also, the superior relative performance of experienced managers measured over the five-year period 1986–1990 was not predictive of superior performance over the subsequent five years. While superior performance is not persistent, there is evidence that inferior performance does persist. Poorly performing managers tend to improve their rankings in the next period, but their performance remains below that of superior managers. One reason for this appears to be differences in expense ratios. Managers with inferior performance and greater than average expense ratios during 1986–1990 perform more poorly during 1991–1995 than funds with below average expense ratios. The results hold after controlling the systematic risk of the fund and risk exposure related to individual management styles defined by Morningstar.

The results of this study are consistent with those of Detzel and Weigand (also in this issue). Using a regression residual approach, they also find no persistence in fund performance after controlling for investment objective and other common portfolio factors. Explicit control for investment objective and style category, as well as longer performance periods, are key facets of the methodologies of our two studies. Though each employs unique methodologies relative to recent work in this area, these studies provide further evidence that neither expertise nor past performance is indicative of future, long-run, superior mutual fund performance.

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REFERENCES

- Bauman, W. S., & Miller, R. E. (1995). Portfolio performance rankings in stock market cycles. *Financial Analysts Journal*, 51, 79–87.
- Carhart, M. M. (1997). On persistence in mutual fund performance. *Journal of Finance*, 52, 57–82.
- Detzel, F. L., & Weigand, R. A. (1998). Explaining persistence in mutual fund performance. *Financial Services Review*, 7(1), 45–55.
- Dunn, P. C., & Theisen, R. D. (1983). How consistently do active managers win? *Journal of Portfolio Management*, 9, 47–51.
- Elton, E. J., Gruber, M., Das, S., & Hlavka, M. (1993). Efficiency with costly information: reinterpretation of evidence from managed portfolios. *The Review of Financial Studies*, 6, 1–22.

- Goetzman, W. N., & Ibbotson, R. G. (1994). Do winners repeat? *Journal of Portfolio Management*, 20, 9–18.
- Golec, J. H. (1996). The effects of mutual fund managers' characteristics on their portfolio performance, risk, and fees. *Financial Services Review*, 5, 133–147.
- Grinblatt, M., & Titman, S. (1992). The persistence of mutual fund performance. *Journal of Finance*, 47, 1977–1984.
- Gruber, M. J. (1996). Another puzzle: The growth in actively managed mutual funds. *Journal of Finance*, 51, 783–810.
- Hendricks, D., Patel, J., & Zeckhauser, R. (1993). Hot hands in mutual funds: Short-run persistence of relative performance, 1974–1988. *Journal of Finance*, 48, 93–130.
- Ippolito, R. A. (1989). Efficiency with costly information: A study of mutual fund performance. *Quarterly Journal of Economics*, 104, 1–23.
- Kahn, R. N., & Rudd, A. (1995). Does historical performance predict future performance? *Financial Analysts Journal*, 51, 43–52.
- Malkiel, B. G. (1995). Returns from investing in equity mutual funds 1971 to 1991. *Journal of Finance*, 50, 549–572.
- Volkman, D. A., & Wohar, M. E. (1995). Determinants of persistence in relative performance of mutual funds. *Journal of Financial Research*, 18, 415–430.