

Mutual Fund Managerial Ownership and Fund Performance

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Introduction

Financial theory and practice posit that firm performance will improve as the financial incentives of managers are aligned with those of the owners. As a result, boards of directors offer managers varied compensation schemes that are designed to improve manager performance via alignment of manager and stockholder interests. Most commonly, these compensation plans include performance incentive-based salary and bonuses and stock and options ownership. Extending this reasoning from industrial firms to money managers, investors should expect greater care, effort, and diligence from professional portfolio managers as each manager's personal financial stake in his or her own performance increases. In fact many money management firms recognize this relationship and offer portfolio managers incentive compensation and/or encourage their portfolio managers to own shares of stock in the funds they manage.

Individual and institutional clients should be interested in and value information regarding the potential financial incentives of their portfolio managers. For a long period of time, mutual fund companies have been required to disclose the amount and method of compensating their portfolio managers, particularly whether managers receive performance-based compensation. However, only within the last year have mutual funds been required to report the fund share ownership position of the funds' portfolio managers.

In this paper, we examine mutual fund ownership by the fund portfolio managers. Namely, we: 1) discuss the new manager reporting requirements and practical aspects for researchers and investors in finding and interpreting the newly-reported data; 2) conduct an initial investigation into the relationship between portfolio manager ownership and fund performance; and 3) suggest questions and directions for future research in this area.

Key Prior Literature

Seminal theoretical and empirical finance literature supports using managerial stock ownership as a performance incentive. Jensen and Meckling (1976) explain how, as a manager's personal financial stake in the firm decreases, the value of outside equity claims is discounted to reflect monitoring and bonding costs and deadweight losses. Empirical studies of public, industrial firms at least partially confirm this relation. Morck, Shleifer and Vishny (1988) show a non-monotonic relationship between the proportion of a firm owned by management and the firm's Tobin's q ratio. Specifically, they find that for low levels of managerial ownership, firm value increases with managerial ownership. For higher levels of manager ownership, the relation is negative and then becomes positive again. More recent evidence (McConnell and Servaes; 1990) supports the Morck, et al. finding that at least at low levels of manager ownership, firm value increases with manager ownership.

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Much empirical work has examined incentive-based compensation in the mutual fund industry. Generally, mutual fund management companies are compensated based on a percentage of assets; individual portfolio managers typically are salaried and may also be compensated via an SEC-compliant performance incentive scheme. Golec (1988) compares the performance of a sample of mutual funds whose managers have performance-incentive compensation to a matched (by assets, expense, and load) sample of funds without performance incentives. Golec finds that incentive-compensated managers outperform non-incentive compensated managers, and that the incentive-managed funds have more systematic risk and less non-systematic risk than the funds of non-incentive managers. Elton, Gruber and Blake (2003) find that incentive-compensated fund managers exhibit superior stock-selection ability, and their funds have lower expenses than funds whose managers do not receive incentive compensation. Because reliable data regarding ownership of fund shares by portfolio managers has only recently become available, no work has examined relationships between mutual fund manager ownership and fund performance.

Security and Exchange Commission Reporting Rules

In July 2004, the SEC revised its rule (17 CFR §274.11A) regarding reporting of mutual fund portfolio manager names, compensation and fund share ownership. The rule changes took effect in February 2005. Every mutual fund is required to report in its prospectus the name(s) of its portfolio manager(s); in the event of a management committee with more than five members, the fund is required to report the names of the five committee members with most day-to-day decision making responsibility. Funds are required in their statement of additional information (SAI) to report other accounts managed by the named fund manager(s), potential conflicts of interest, compensation structure, and ownership of fund shares by the named portfolio managers. In its reasoning for the rule change, the SEC states that such disclosure allows investors to determine “whether a manager's interests are aligned with their own,” (SEC; 2004). The Commission’s assumption of investor interest is consistent with the theoretical and empirical findings of works cited above.

Specifically, the new rules require the reporting of the dollar range of the value of fund shares owned by each named manager. The range categories are: none, \$1-\$10,000, \$10,001-\$50,000, \$50,001-\$100,000, \$100,001-\$500,000, \$500,001-\$1,000,000, and over \$1,000,000. The range format is intended to allow disclosure of the degree of manager ownership without compromising the privacy of the portfolio manager(s).

Obtaining and Interpreting the Data

These newly reported data may be very helpful to investors in evaluating potential investments as well as researchers in the study of the mutual fund industry. In addition to investors now being able to determine alignment of interests, researchers may now directly test for efficacy of such alignment of interests. Prospectus and SAI data are publicly available through fund web sites, from filings in the SEC’s EDGAR database, or in some cases through web sites of financial advisors who sell funds.

There are several practical issues related to the collection and use of the reported data:

- As the ownership levels are reported as ranges, the data are not continuous, and non-continuous data limit the types and power of statistical tests that can be conducted.
 - The reporting is truncated, with the highest level reported as “over \$1 million.” As a result, there is no distinction between the portfolio manager who owns \$1,000,001.00 worth of shares and a manager who owns \$20 million. Also, because the data are reported as ranges, managers may have incentive to own just \$1 more than the lower limit of a range in order to “break” into that range and present a more favorable picture to potential investors.
 - There is no standard format for reporting the ownership levels; funds may use narrative text or tables. The former is common for funds where the portfolio manager owns no shares, with a sentence like, “None of the portfolio managers own any fund shares,” included in a large paragraph.
 - As the data must be manually collected, researchers must take care to distinguish between a manager’s share ownership reported as a trustee or as a portfolio manager. Trustee ownership is also reported, but the highest level is “over \$100,000.”
 - Some funds do not follow the reporting convention. For example, Navellier Mid-cap Growth reports Louis Navellier’s precise share ownership, rather than his dollar range.
- Thus, while the data are reported and available, collection and use require special effort and care.

Sample

We examine manager ownership and fund performance for a sample of mutual funds. Our initial sample consisted of every tenth fund listed in the Wall Street Journal’s quarterly mutual funds report published November 7, 2005. We eliminated funds that were duplicate share classes, funds whose managers had less than three years’ tenure, and funds for which prospectus data and SAI were not readily available electronically. Our final sample consisted of 203 mutual funds. For each fund, we collected returns and risk data from Morningstar as of December 31, 2005 and ownership data for the lead portfolio manager listed in each fund’s prospectus.

Our sample includes 98 equity funds, 43 bond funds, and 62 balanced funds. Of this group, 77 (38%) funds’ lead managers owned no shares in the fund; this represented a plurality of the funds. The second most frequent ownership level was the \$100,001-\$500,000 range, with 45 funds (22%). Twenty-nine funds (14%) reported that their lead manager owned over \$1 million worth of fund shares.

Several funds in our sample are managed by the “proprietor” (or someone with a proprietary interest) of that fund’s management company. Such managers are compensated not only for management of the fund, but also as owner of the management company. Thus, these managers have a financial interest in fund growth and fund marketing efforts. If these managers believe that fund investors value managerial ownership as an interest-alignment device, they will own significant amounts of shares, if for no other reason, to bolster fund marketing efforts. Table I lists “proprietor”-managed funds and the ownership positions of their managers. Almost all these managers report ownership in one of the top two levels, or at least \$500,001 of fund shares. The most notable exception is Steven Leuthold who owns no shares of his Grizzly Short

Fund; even this result is not surprising given this fund's highly specialized objective. Proprietor-managers appear to accept the notion that investors value managerial share ownership.

Performance Characteristics Tests

Consistent with prior work, we posit that increased levels of portfolio manager ownership of fund shares will align manager and owner interests and improve fund performance. We examine the sub-sample of 98 equity mutual funds. Of this group, 27 funds reported that their manager owned no shares in the fund, while 14 reported that the manager owned fund shares worth in excess of \$1 million. Table II, panel A contains results of pooled t-tests for differences in mean values of 1-year return, 3-year return, 3-year alpha (versus the S&P 500 Index), and 3-year beta among funds in which managers own any amount of shares and funds with no managerial ownership. The funds in our sample show no significant differences in the means of any of these variables among the two groups.

In order to examine potential differences over a longer time period, we also perform the t-tests for 79 funds with manager tenure greater than five years. Of this group, 18 funds reported that their manager owned no shares in the fund, while 11 of the remaining 61 funds reported that the manager owned fund shares worth in excess of \$1 million. Table II, panel B displays the results of pooled t-tests with this sub-sample of funds. Tests with this sub-sample provide results similar to panel A for the 1 and 3-year performance and risk variables. In addition, there is no significant difference in mean values for 5-year return, 5-year alpha or 5-year beta. Thus there is no evidence that performance of equity mutual funds improves when the portfolio manager owns shares in the fund versus owning no shares in the fund.

We also examine whether the degree of ownership influences these performance variables. That is, while there are no differences when the categories are ownership versus no ownership, there may be differences in performance variables when the level of ownership is considered. We conduct ANOVA tests for differences in mean values of performance variables across the seven range categories of managerial ownership, again focusing on the equity funds subsample. Table III displays the results of these tests. The very low F-statistic values indicate no difference in mean values of 1-year return, 3-year return, 3-year alpha, and 3-year beta across funds in the different managerial ownership categories. There are also no mean differences in these variables across ownership categories in the 5-year manager tenure sub-sample of 79 equity funds. The very low (all < 10%) values of R^2 in all the ANOVA tests indicate that managerial ownership would at most account for only a small amount of the variability in fund performance.

These results indicate that manager ownership has no effect on fund returns. While such a finding is contrary to agency theory predictions, there are at least two potential explanations. One explanation is market efficiency. Unlike in the case of a manager of an industrial firm, capital market efficiency may render mutual fund manager effort of little value, regardless of manager incentives. Another possible explanation is that the use of incentive compensation by funds may serve as an effective substitute for direct share ownership as a device for aligning the interests of the portfolio manager and fund investors.

Conclusions and Future Research

In this paper, we have examined mutual fund share ownership by fund portfolio managers, using newly-reported data. These new data, although requiring manual collection and fraught with potential obstacles for interpretation, may yield new insight into fund and industry operations. Our basic investigation of ownership and fund performance indicated no relationship between a portfolio manager's ownership of fund shares and several performance-related fund variables.

There are additional potential questions for future research in this area. One is what are the determinants of a manager's ownership of his or her fund's shares? There are legitimate reasons why a dedicated fund manager would not own shares in his fund, such as the fund being inappropriate for the manager's goals, life situation, etc. Another question for future research is whether fund share ownership and other incentives such as performance-based pay are used in practice as substitutes for each other. Finally, it may be useful to examine whether investors value the newly-reported manager ownership information.

Table I

"Proprietor"-Managed Funds

Fund Name	Portfolio Manager	Ownership Level
Baron Asset	Ronald Baron	\$500,001-\$1 million
Calamos Growth	Nick Calamos	\$500,000-\$1 million
Davis Financial	Christopher Davis	Over \$1 million
Gabelli Asset	Mario Gabelli	Over \$1 million
Leuthold Grizzly Short	Steven Leuthold	None
Navellier Mid-cap Growth	Louis Navellier	\$100,001-\$500,000 *
Nicholas Fund	Albert Nicholas	Over \$1 million
Nicholas High Income	David Nicholas	\$500,001-\$1 million
Northeast Investors Trust	Ernest Monrad	Over \$2 million
Pennsylvania Mutual	Charles Royce	Over \$1 million
Stratton Small-cap Value	James Stratton	Over \$1 million

* Fund SAI reports Mr. Navellier's fund share quantity holdings rather than dollar range.

Table II

Results of pooled t-tests (one-tailed) for difference in means of fund performance variables between equity mutual funds in which the lead portfolio manager owns fund shares and those in which the lead portfolio manager does not own shares.

Panel A: Funds with manager tenure > 3 years as of 12/31/2005			
Variable	Mean _{own}	Mean _{no-own}	t-value (p(t))
1-year Return	8.68%	8.07%	0.41 (0.34)
3-year Average Return	17.94%	18.68%	-0.41 (0.66)
Alpha 3-year	2.01%	1.08%	0.23 (0.41)
Beta 3-year	1.068	1.062	0.07 (0.47)
Number of Funds	71	27	
Panel B: Funds with manager tenure > 5 years as of 12/31/2005			
Variable	Mean _{own}	Mean _{no-own}	t-value (p(t))
1-year Return	8.86%	9.03%	-0.09 (0.57)
3-year Average Return	17.90%	19.48%	-0.68 (0.75)
5-year Average Return	4.92%	5.70%	-0.34 (0.63)
Alpha 3-year	2.08%	2.16%	-0.07 (0.53)
Alpha 5-year	3.92%	3.44%	0.25 (0.40)
Beta 3-year	1.053	1.027	0.26 (0.40)
Beta 5-year	0.899	0.909	-0.10 (0.54)
Number of Funds	61	18	

Table III

Summary of results of ANOVA tests for unequal means of selected performance variables among seven categories of mutual fund portfolio manager ownership.

Panel A: Funds with manager tenure > 3 years as of 12/31/2005			
Variable	R ²	F	p(F)
1-year Return	0.075	1.05	0.403
3-year Average Return	0.028	0.37	0.917
Alpha 3-year	0.075	1.05	0.403
Beta 3-year	0.011	0.15	0.994
Number of Funds	98		
Panel B: Funds with manager tenure > 5 years as of 12/31/2005			
Variable	R ²	F	p(F)
1-year Return	0.060	0.65	0.714
3-year Average Return	0.034	0.36	0.921
5-year Average Return	0.088	0.98	0.455
Alpha 3-year	0.083	0.92	0.496
Alpha 5-year	0.088	0.98	0.449
Beta 3-year	0.009	0.09	0.999
Beta 5-year	0.034	0.35	0.926
Number of Funds	79		

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U.S. Securities and Exchange Commission, 2004. Release No. 33-8458: Disclosure Regarding Portfolio Managers of Registered Management Investment Companies.