

The Rise of Anonymous Teams in Fund Management*

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ABSTRACT

The fraction of actively managed mutual funds that report being anonymously “team managed” increased by a factor of 4-5 between 1993 and 2004. The family’s decision to use an anonymous team or to share credit for a fund’s performance with a named manager involves tradeoffs between marketing, incentives, and rent sharing. We find that named-manager funds are much more likely to receive positive media mentions, have greater inflows, and earn slightly higher returns. However, departures of named managers reduce inflows, especially for funds with strong past performance, suggesting that named managers enjoy greater bargaining power. Consistent with hedge funds increasing outside opportunities for managers, we find the shift to anonymous team management is more pronounced in asset classes and geographies more affected by the hedge fund boom. A decline since 2000 in the media’s preference for named managers likely also contributed to the rise of anonymous teams.

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1 Introduction

The management of a mutual fund typically involves the work of many people.¹ Despite this fact, mutual fund management firms have traditionally chosen to identify a specific individual as the manager of each fund. For example, Peter Lynch is best known as the manager of Fidelity’s Magellan fund. This historical tendency to identify a single fund manager by name, however, declined significantly over the past decade. Increasingly, firms began reporting multiple manager names or simply reporting that their fund is “team managed” without disclosing any manager names. In particular, the incidence of anonymous team management of actively managed mutual funds increased by a factor of 4-5 between 1993 and 2004 (Table 1).²

In this paper, we examine the tradeoffs involved in sharing credit with employees by studying mutual fund firms’ decisions about whether to publicly identify those involved in managing their funds. An *ex ante* decision about whether to share credit for project outcomes with employees is essentially a decision about who will own the project’s track record. As with other decisions about asset ownership, sharing credit with employees involves a tradeoff between rent sharing and incentives. In addition, if some customers prefer products that they associate with a person instead of a firm, for rational or behavioral reasons, the decision may have marketing consequences as well.

We find that in our setting, the primary tradeoff in naming managers is between rent sharing costs and marketing, not incentive, benefits. Funds with named managers receive more positive mentions in the media, and partly as a result, receive more inflows. One of the most powerful media mentions in terms of generating investor interest is a profile of a particular manager, such as

¹We base this statement primarily on interviews with small asset management firms. Consistent with their comments, Baks (2003) estimates that for funds with a sole named manager, the manager’s individual contribution accounts for less than 50 percent of fund performance.

²Throughout this paper, we refer to funds that do not disclose any manager names as “team managed,” to funds that list more than one manager name as “co-managed,” and to funds that list a single manager name as “sole-managed.” This is a departure from the existing literature, which typically refers to any fund with more than one named manager as team managed.

the “Investing With” column that ran in the Sunday *New York Times* during most of our sample period, and these articles are understandably especially unlikely to profile anonymously managed funds.³ On the other hand, named-manager funds suffer an inflow penalty if a named manager departs, especially after good performance. While we do not observe managers’ wages directly, this result implies that naming managers should increase their bargaining power, especially when they are successful.

This prospect should in turn create incentive effects, and we do indeed find that risk-adjusted annualized returns are 40 to 50 basis points higher in funds with named managers, despite expense ratios that are 17 basis points higher. In order to understand this difference, we follow Grinblatt and Titman (1993) and Kacperczyk, Siam, and Zheng (2006) (KSZ hereafter) and decompose pre-expense returns into the returns on the most recently disclosed holdings and the gap between these holding returns and the actual returns of the fund. This decomposition reveals that the better performance of named managers is not due to superior long-run stock selection ability of named managers, but rather to their funds experiencing less of a return gap. KSZ argue that this return gap captures the “unobserved actions of a fund,” including the tolerance of dilution from fund arbitrage trading and favoritism in the allocation of IPOs. Moreover, we find that the differences in return gaps and arbitrage dilution between named-manager and anonymously managed funds are stronger within than between families, suggesting that managers are more likely to obtain favorable treatment within their families when their names are publicly associated with the funds’ performance.

Two developments in the last decade have affected this marketing-rent-incentives tradeoff and help explain the rise of anonymous teams. First, the more than ten-fold growth in the hedge fund

³Reuter and Zitzewitz (2006) find that a profile in the “Investing With” column is associated with a 15 percent increase in fund size over the next year. By comparison, a single positive mention in a top personal finance magazine is associated with a 6-8 percent increase.

industry has increased the outside opportunities for managers, especially those who are publicly associated with successful mutual funds.⁴ We find that the shift to anonymity has been most pronounced in asset classes, cities, and states most affected by the hedge fund boom. For example, the collapse of the global macro hedge fund Long Term Capital Management in 1998 contributed to a sharp decline in interest in internationally oriented hedge funds, whose share of hedge fund assets fell from 28 percent in 1997 to 4 percent in 2000. This should have differently reduced the outside opportunities of named international fund managers, and indeed the shift to anonymity in that category slowed substantially. Likewise, the New York City area accounts for about 60 percent of the U.S. hedge fund industry, and the shift to anonymity was faster among fund families headquartered in that city. Second, after 2000 the media's preference for mentioning named-manager funds declined sharply. The share of mentions of mutual funds in two major personal finance magazines that were in articles oriented around a particular manager or firm declined from 26 percent in 1998-2000 to 10 percent in 2001-2. This trend was probably reinforced by the 2003 mutual fund scandal, evidenced in part by the *New York Times* discontinuing its "Investing With" column in early 2004.

In addition to the trend toward anonymity there has also been a one toward naming more than one manager. The increase in "co-management" of mutual funds occurred earlier – their share increased rapidly from 1993 to 1998, whereas anonymous team management increased most rapidly from 1997 to 2003. In many respects, co-management might be viewed as an intermediate step between naming a single manager and keeping the management team anonymous. A successful co-manager has more hold-up power than an anonymous team member, but less than a successful sole manager.⁵ The media appears to weakly prefer mentioning sole-managed funds to co-managed

⁴Industry participants we interviewed confirmed that a named manager, especially one who has been promoted in the media, can more readily attract hedge fund assets than an anonymous team member at an equally successful fund.

⁵There does not appear to be an alphabetic norm in ordering co-managers of funds. The probability of the first

funds, but strongly prefers mentioning both to team-managed funds.

In interpreting reports of “team management” as being primarily informative about managerial anonymity rather than differences in the number of individuals involved in the management of the fund, our study represents a departure from prior work. Other studies compare the performance of funds with a single named manager with multi-manager funds (co-managed and team-managed funds taken together) and find return differences similar to what we find.⁶ These studies have generally interpreted these differences as informative about a team production effect. We isolate team production from anonymity effects by separately analyzing sole-managed, co-managed, and anonymous team-managed funds. In almost all of our analyses—including returns—we find that the largest difference is between anonymously managed funds and those with any number of named managers. This is consistent with our interviews of industry participants, who emphasized that funds’ self-reported management structure is primarily a marketing choice.⁷

Our study relates to several literatures. It clearly relates to theoretical and empirical work on career concerns (Holmström, 1999; Chevalier and Ellison, 1999). In addition, since the decision to report “team management” is a decision about who owns the track record of the fund, our project is also related to the literature on the theory of firm boundaries. In Williamson (1979), Grossman and Hart (1986), and Hart and Moore (1990), *ex ante* negotiations assign asset ownership so as to minimize ex-post hold-up problems and thus avoid distorting incentives for investment in relationship-specific assets. In Holmström and Milgrom (1991), asset ownership is assigned so

two named managers being in alphabetical order is 54 percent in Morningstar and 50 percent in CRSP.

⁶Prather and Middleton (2002), Chen, Hong, Huang, and Kubik (2004), and Bliss, Potter, and Schwarz (2006) compare the performance of sole-managed funds with multi-manager funds (co-managed and team-managed funds taken together), finding underperformance by multi-manager funds of between 0 and 4 basis points per month. Baer, Kempf, and Ruenzi (2005) compare the performance of team-managed and sole-managed funds, finding that team-managed funds underperform by 5.5 basis points per month.

⁷For example, in interviews conducted at the beginning of the project, small fund company CEOs told us that “in reality, all funds are managed by multiple people” and thus “team management is primarily about what you tell the world.” One CEO also told us that “stars are good for marketing, especially with retail investors, ... but [named] managers are more expensive to pay,” anticipating some of our results.

as to create appropriate incentives for non-contractible effort. Empirical work on other industries suggests that these theories have significant explanatory power (for example, see Monteverde and Teece (1982) on autos, Joskow (1985) on coal mining, Baker and Hubbard (2003) on trucking, and Simester and Wernerfeldt (2005) on construction). In our context, these theories would predict individual management when managerial effort was central to a fund's success and team management when limiting the rents appropriated by successful managers was more important. An industry development that increased successful managers' outside opportunities, such as the hedge fund boom, might be expected to motivate a shift toward team management.

To this standard incentives-rent tradeoff, we add the marketing benefits of named managers, which we find to be substantial. Past research has found that investors appear to value past performance (Ippolito, 1992; Gruber, 1996; Chevalier and Ellison, 1997) out of proportion with its ability to predict future returns (Carhart, 1997 and others). In choosing funds, investors face search costs and thus consider only a subset of available funds (Hortascu and Syverson, 2004), and media mentions help place a fund in investors' choice sets (Sirri and Tufano, 1998; Kaniel, Starks, and Vasudevan, 2004; Reuter and Zitzewitz, 2006). Other research has discussed consumer preferences for products with brand personalities (Aaker, 1997) and for investments with "stories" (Barber, Heath, and Odean, 2003 and Shleifer, Mullainathan, and Schwartzstein, 2006), and a prominent named manager potentially gives mutual funds both.

Our finding that return gaps differ depending on whether managers are named contributes to the growing literature on agency and shareholder asset diversion in fund management. Zitzewitz (2003) reports evidence that fund management firms favored some investors in a specific fund at the expense of others, while Gaspar, Massa, and Matos (2006) provide evidence of favoritism within mutual fund families. Unnamed managers having a higher tolerance for asset diversion is one possible explanation for the otherwise unexplained underperformance of team-managed funds.

Finally, our paper relates to the literature on the economics of superstars (Rosen, 1981). Mal-mendier and Tate (2005) find that CEOs who win media awards and become “superstars” earn higher compensation, but subsequently underperform. In contrast, we find that named fund managers produce better returns for their investors and attract more inflows for their employers but are nonetheless becoming less common. One crucial difference between CEOs and fund managers is that a fund manager’s access to superstardom can be regulated by their employer, while CEOs presumably have more discretion about whether to promote themselves as stars.

2 Data

Our data come primarily from the CRSP Survivorship-Bias Free Mutual Fund Database. To avoid potential problems with backfill bias, we drop any observation that lacks a fund name. In addition, since the unit of observation in CRSP is the mutual fund share class, we aggregate data to the portfolio level to avoid double counting. An essential variable for our purposes is manager name, which CRSP begins reporting in 1992. This variable contains one or more manager names or the phrase “team managed” or “multiple managers” (Table 1).⁸ A small portion of the increase in team management is associated with index funds. Therefore, to avoid confusing the determinants of anonymous team management with the determinants of indexing, in the analysis that follows, we either include an index fund dummy variable or limit our sample to actively-managed funds.⁹ Since Morningstar is arguably a more important channel for disseminating information to investors, we collect the Morningstar manager name variable from a 1993 to 2004 panel of Morningstar Principia CDs and merge the CRSP and Morningstar data using fund tickers. For the funds we

⁸In some cases, CRSP reports “John Doe (et al)” or “John Doe/team managed”. Since both of these examples report one manager name, we would classify them as sole-managed funds. Given the small number of observations of these types, none of our results are sensitive to this coding decision.

⁹Since CRSP does not identify passively-managed (index) funds, we identify index funds as funds whose name does not contain the word index, the name of a major index, or some abbreviation thereof.

were able to match, agreement between Morningstar and CRSP/Micropal was high but not perfect. One major source of differences was that CRSP rarely reports more than 3 fund manager names, while the maximum number of manager names reported in Morningstar has varied by year. From 1993 to 1996, Morningstar did not report more than 2 manager names, and most funds with 3+ manager names in CRSP were classified as “team managed” by Morningstar (Table 2). From 1997 on, Morningstar reported up to 7 manager names, and most of the funds with 4 or more named managers in Morningstar were reported as “team managed” by CRSP. Adjusting for this difference, the databases agree on whether funds were sole, co, or team-managed approximately 70 percent of the time. In the analysis that follows, we present as our central results those using the classification based on the raw Morningstar manager name variable. However, results are similar when we use the classification based on CRSP.

To ask whether media mentions favor funds with named managers, we use hand-collected data on mentions of mutual funds in five publications: *New York Times*, *Money* magazine, *Kiplinger’s Personal Finance*, *SmartMoney*, and *Consumer Reports*. For the *New York Times*, we include funds mentioned in the Sunday “Investing With” column, which interviewed fund managers and provided details on a fund they managed. For *Money* and *Consumer Reports*, we include only the funds listed in their annual lists of recommended funds. For *Kiplinger’s* and *SmartMoney*, we conducted a Factiva search for articles including the word “fund” and then categorized the mentions of specific funds as being either positive or negative. We also categorized the articles into three groups: articles making general investment recommendations (e.g., “Best Funds to Buy Now”), articles on a specific investment theme (e.g., “Four Great Energy Funds”) and articles about a particular fund or firm (e.g., “Magellan’s Driven Boss”). Data on monthly fund family advertising expenditures were purchased from Competitive Media Research (CMR) and are used in our analysis of media mentions. CMR tracks advertising by firm and outlet, using its knowledge of published

advertising rates and typical discounts to estimate spending. The media mention and advertising data cover the years 1996 to 2002 and are described in more detail in Reuter and Zitzewitz (2006).

Data on monthly fund returns come from CRSP. We construct our prior-period holdings return and return gap variables using the procedure outlined in Kacperczyk, Sialm, and Zheng (2006). Since this procedure involves merging fund-level equity holdings data from Thomson Financial with mutual fund data from CRSP, and Thomson Financial does not report debt holdings, we follow KSZ and construct the return gap only for the sample of non-specialized domestic equity funds.¹⁰ To identify recent initial public offerings (IPOs), we merge the Thomson Financial equity holdings data with the SDC New Issues Database. To study dilution from market timing, we use daily flow data for a sample of international equity funds from Lipper and TrimTabs. The daily flow data are described in Zitzewitz (2006). When we estimate risk-adjusted returns, we do so using the monthly factor returns available on Kenneth French's website.

To ask whether the rise of anonymous teams is associated with the rise of the hedge fund industry, we utilize hedge fund data from TASS. Data on dollars under management within each asset class and year between 1994 and 2004 are reported in Getmansky, Lo, and Wei (2004). Data on the locations of hedge fund assets also come from TASS. Data on the locations of mutual fund families were hand-collected from the *Nelson Directory of Investment Managers*, and cover 1996 to 2002.

3 Empirical results

We begin by exploring the two potential benefits of named managers: marketing (more media coverage and inflows) and incentives (higher returns). Next, we explore one potential cost of

¹⁰We identify non-specialized domestic equity funds as funds in the CRSP dataset with the S&P objective codes of Aggressive Growth (AGG), Equity USA Midcaps (GMC), Equity USA Growth and Income (GRI), Equity USA Growth (GRO), and Equity USA Small Companies (SCG).

named managers, namely, the inflow penalty suffered when a named manager departs after a good year. Finally, we explore how the rise of anonymous team management relates to the rise of the hedge fund industry.

3.1 Named managers, the media, and investor demand

As discussed above, media mentions help inform and persuade potential investors, and the financial media often write about specific fund managers. Table 3 presents probit regressions predicting positive media mentions in the five publications detailed above. In addition to including indicator variables for whether a fund is team or co-managed, the regressions include controls for expense ratio, 12b1 fees, portfolio turnover, fund returns and inflows over the prior 12 months, the natural logarithm of lagged fund and family assets, fund age, the number of stars given the fund by Morningstar in the prior December, and an indicator variables for whether the fund charges a sales commission (load). Magazine mentions are treated as having occurred in the month prior to the issue month and all independent variables are lagged to ensure that no post-mention data is used in their construction.¹¹

To control for variation in the popularity of different asset classes at different times, the regressions include fixed effects for investment objective-month combinations. In probit regressions, including these fixed effects causes observations to be dropped for objective-month combinations in which no fund receives a media mention. For example, for the *Money* and *Consumer Reports* annual lists, the sample thus includes only the months in which a list is published. Following much of the above-cited literature on mutual funds flows, we include these control variables and fixed effects in all of the regressions in our paper. In addition, given the finding of Reuter and Zitzewitz

¹¹We established this timing based on the fact that, for example, the September issue of a personal finance magazine almost always appears on newsstands before September 1 and includes return data through July 31, suggesting that its content was largely written in August.

(2006) that advertising influences mentions in some of these publications, our regressions predicting media mentions also include controls for total and same-publication print advertising expenditure over the prior 12 months. Standard errors cluster on fund family.

The estimated marginal effects on the anonymous-team dummy variable suggest that team-managed funds are less likely to receive positive media mentions than otherwise identical funds with named managers. Co-managed funds also receive fewer mentions than sole-managed funds, but more than those mentioned by anonymous teams. A comparison of the coefficient on the team-managed and co-managed dummy variables with coefficients on the control variables suggests that this difference is economically large in magnitude. For instance, a causal interpretation of the regressions would imply that being team-managed reduces the likelihood of a positive mention about half as much as being a load fund, or as much as having returns that are 25 percentage points lower.

Table 4 presents similar regressions for different sets of mentions. As described above, we categorize mentions in *Kiplinger's* and *SmartMoney* into mentions in articles that focus on a single fund or family, articles that focus on a single investment theme, and articles that provide general investment advice. One might expect team-managed funds are less likely to be mentioned in articles profiling a particular fund or family, and this turns out to be the case. Team-managed funds are less likely to be mentioned in general investment recommendation and investment theme articles as well, although these estimated effects are smaller and the latter is not statistically significant.

On the other hand, team-managed funds are also less likely to receive negative mentions. This is a smaller advantage than it might seem, however, because positive mentions in these publications outnumber negative mentions by a factor of about eight. In addition, the inflow effects of positive mentions are significantly greater than for negative mentions. Since funds cannot be sold short, the only investors who can act on a negative recommendations are ones who already own a fund.

In the last two columns of Table 4, we examine the determinants of one and five-star ratings in Morningstar. Given that Morningstar rated funds during this period using a mechanical formula that did not place any weight on whether a fund was team managed, these regressions provide a falsification test for whether our other media mention results are driven by correlations between team management and omitted variables. The fact that coefficients for predicting Morningstar stars are statistically insignificant and small in magnitude suggests that this is not the case.

In Table 5, we examine how the media's preference for named-manager funds evolves between 1996 and 2002. We find that the preference for named-manager funds appears to have peaked during the 1998-2000 period, as measured by both the absolute and relative size of the team-managed coefficient. This peak coincides with, but is only partially explained by, a peak in the share of mutual fund mentions in *Kiplinger's* and *SmartMoney* that were in single fund/family articles (Table 6). The media appears to have been most interested in writing about individual fund managers during the stock market boom years.¹² As this interest has declined, the public relations penalty associated with team management has become less important.

In Table 7, we turn from pooled probit specifications predicting media mentions to Fama-MacBeth (1973) specifications predicting monthly mutual fund inflows.¹³ Specifically, controlling for the same set of variables as in Table 3, we test whether team-managed funds also receive fewer inflows than their named manager peers. For the purposes of this analysis, we restrict our sample to the 99.84% of observations with continuously compounded monthly inflows of less than 100 percent. Indeed, we find that team-managed funds attract fewer inflows than otherwise identical funds with named managers. Once media mentions in our five publications are controlled for, however, the

¹²Consistent with investor demand for mutual fund information changing between bull and bear markets, Mulainathan and Shleifer (2006) also find that mutual fund families are more likely to advertise absolute fund returns during a bull market.

¹³Standard panel data regressions, with fixed effects for objective-month combinations and standard errors that allow for clustering within family, yield very similar results.

negative coefficient on the team-managed dummy for no-load funds is reduced by approximately 10–15 percent, suggesting that the above-mentioned media “bias” against team-managed funds helps econometrically explain the lower demand for team-managed no-load funds.

It is important to keep in mind that the regressions in Tables 3-5 and 7 are testing for a partial correlation that need not reflect a causal effect. For example, when fund firms propose story ideas to reporters, they may be less likely to promote their team-managed funds if they expect that doing so is less likely to lead to a positive mention. Likewise, if they expect investors to be more receptive to named-manager funds, they may advertise or otherwise promote these funds more aggressively. Equally, fund firms may be more likely to name a manager if she is skilled at press relations or marketing. Any of these stories would serve to reinforce any bias against mentions of or inflows into team-managed funds. As a measure of a causal effect, the sign of the coefficient on “team management” might therefore be reliable than the magnitude.

To better understand the sources of variation in team management, we model team management as a function of a fund’s characteristics (size, family size, past returns, and age) as well as of other pricing and marketing decisions (expense ratio, loads, and 12b1 fees). The results in Table 8 suggest that firm effects explain a large portion of the variance in team management.¹⁴ While other fund characteristics play less of a role, some correlations are noteworthy. For example, team management and switching to team management is most common among small funds with low expense ratios and poor past returns. Tables 3-5 suggest that these are funds less likely to receive media mentions, suggesting complementarities between named managers and other characteristics that attract media mentions.

That team management is minimally correlated with characteristics other than fund family

¹⁴Baer, Kempf, and Ruenzi (2005) also note the within family correlation in CRSP’s classification of funds. A small fund company CEO gave a possible explanation for this in an interview, arguing that promoting individual star managers of some funds was culturally incompatible with a team approach to other funds.

does not necessarily imply that it can be viewed as an exogenous determinant of investor demand. The importance of fund family fixed effects does suggest, however, that fund-level use of team management is strongly influenced by firm-level decisions. Therefore, to the extent that past firm-level decisions about team management are exogenous to unobserved current-period fund-level variation in investor's appetite for team or named management, they may provide an instrumental variable that helps determine whether team management has a causal effect on fund-level demand.

A related concern, particularly given the discrepancies between CRSP and Morningstar's classification of funds discussed above, is that Morningstar might be observing the team management of a fund with error or, more problematically, fund families might be biasing their reporting to Morningstar based on whether they think that team or named-manager funds would appeal more to investors. If CRSP's classification of a fund is correlated with the truth, but errors in CRSP's and Morningstar's classifications are uncorrelated, then using the CRSP classification as an instrumental variable for the Morningstar classification would eliminate biases due to both classical measurement error and biased reporting.¹⁵

Table 9 reestimates the regressions in Tables 3 and 7 using the two instrument variables strategies outlined above. For inflows into no-load funds, both instrumental variable specifications yield coefficients on the anonymous team managed dummy that are similar to those obtained via OLS, suggesting that no-load family decisions to designate their funds as anonymous team managed are not correlated with unobserved characteristics that affect their attractiveness to investors. However, for inflows into load funds, the coefficients estimated via OLS are positive and, in one case, statistically significant at the 10-percent level. These estimates suggest that any inflow penalties caused by anonymous team management may be limited to no-load funds. For the media men-

¹⁵The CRSP/Micropal database is much less used by the media, investors, and financial advisors than Morningstar as a source of information about funds. While this leads us to prefer Morningstar as a source for information about whether firms intended for funds to be viewed as being team managed, it gives CRSP the useful characteristic of being a source that firms do not have a direct incentive to influence.

tion analysis, we follow Angrist and Krueger (2001) and switch from probit to a linear probability specification. Using the fraction of the family’s funds that are team managed as an instrumental variable, the estimated coefficient on the anonymous team managed dummy variable is slightly larger than the coefficient estimated via OLS. Using the CRSP classification as an instrumental variable, however, results in a coefficient that is negative but not statistically significant from zero. Overall, the baseline and IV specifications suggest that funds run by named-managers receive more media mentions and inflows than their anonymous team-managed peers.

3.2 Named managers and returns

In this section, we ask whether named-manager funds earn higher returns than their anonymous team-managed peers. The first column of Table 10 reports coefficients from a pooled OLS regression of fund i ’s net (after-expense) return in month t on dummy variables indicating whether fund i was team-managed or co-managed during the prior calendar year, investment objective-month fixed effects, and control variables from Table 8. The sample covers 1994 to 2004 and is restricted to actively-managed, non-specialty domestic equity funds.¹⁶ The coefficient on the anonymous team-managed dummy is -0.011, or -1.1 basis points per month, but not statistically significantly different from sole-managed funds, the omitted category. In columns (2) and (3), we replace fund i ’s net return with one and four-factor alphas, which are estimated as in Carhart (1997). Here, we find that sole-managed funds earn risk-adjusted returns 3.7 to 4.6 basis points per month higher than team-managed funds and that the differences are statistically significant at the 5- and 10-percent levels.¹⁷ (When estimating standard errors in Tables 10, 11, and 12, we cluster on fund.)

¹⁶We classify Potomac, ProFunds, and Rydex funds as specialized domestic equity funds and exclude them from the analysis in Tables 10, 11, and 12. These funds have exceptionally high turnover (approximately 20 times the average fund in our sample) and tend to be anonymously team-managed. Including these funds changes the sign on the coefficient on the anonymous team-managed dummy in the analysis of turnover (column (5) of Table 10) from negative to positive but does not otherwise alter our results.

¹⁷Chen, Hong, and Kubik (2006) find that funds that outsource stock picking to subadvisers underperform their peers. To the extent that Morningstar is more likely to list subadvised funds as being team managed, our finding

Interestingly, team-managed funds earn lower net returns despite having expense ratios that are 16 basis points lower per year (column (4) of Table 10).

To determine the source of the return difference between named-manager and team-managed funds, we follow Grinblatt and Titman (1993) and Kacperczyk, Sialm, and Zheng (2006) and decompose net returns into the gross returns of prior-period holdings, the expense ratio, and the remainder, which KSZ refer to as the “return gap.” Since we are only able to obtain holdings return data for U.S. stocks and only possess matched holdings data through 2002, we limit the sample to non-specialized domestic equity funds between 1994 and 2002 and adjust the prior holdings return for a fund’s non-stock holdings.¹⁸ In columns (1) through (3) of Table 11, we report coefficients from pooled regressions based on net returns, the predicted returns based on prior holdings, and the return gap, respectively. This decomposition reveals that whereas we are unable to draw firm conclusions about differences in after-expense fund returns and the returns on prior holdings, team-managed funds do have more negative return gaps than sole-managed funds. By this less noisy measure of performance, team-managed funds underperform named-manager funds by 3.3 basis points per month—approximately 40 basis points per year—and the difference is statistically significant at the 1-percent level.

As KSZ discuss, a negative return gap can have multiple sources. For example, funds with negative return gaps may do more trading, paying higher transaction costs in the form of trading commissions or price impact. However, when we test whether portfolio turnover is higher in team-

that team-managed funds underperform may be driven by the underperformance of subadvised funds. Using data from Del Guercio, Reuter, and Tkac (2006) on subadviser relationships in effect in either 1996 or 2002, we find that subadvised funds are, in fact, more likely to be team managed in those two years: 19.6% for subadvised funds versus 14.7% for internally managed funds. However, when we drop any fund with a non-affiliated subadviser relationship in either 1996 or 2002, the coefficients on the team-managed dummy in columns (1), (2), and (3) of Table 10 become -1.2 (p-value of 0.595), -4.3 (0.083), and -4.1 (0.058), which are quite close to the coefficients we report in Table 10.

¹⁸When a fund invests less than 100 percent of its portfolio in common stock, we assume that its non-stock holdings earn the risk-free rate of return (as reported on Ken French’s website). To the extent that funds hold long-term bonds instead of cash, this assumption is imprecise. Fortunately, according to the CRSP database, the bond holdings of non-specialized domestic equity funds are small (less than 1 percent of assets on average), and the assumption only biases our tests to the extent that team-managed funds hold a different mix of bonds than named-manager funds.

managed funds, we find that it is, in fact, significantly lower (column (5) of Table 10). Moreover, when we study the number of stocks that fund report holding at fiscal year's end (for the years 1994 to 2002), we find that team-managed funds hold less concentrated portfolios, which also suggests less trading activity. In other words, team-managed funds underperform despite what appears to be less active management.¹⁹

If team-managed funds trade less than named-manager funds, what explains the negative return gap? One possible explanation is that anonymous team-managed funds benefit less from favoritism than named-manager funds (Gaspar, Massa, and Matos, 2006). For example, KSZ find that funds receiving IPO allocations have significantly higher return gaps than other funds. To the extent that inflows into named-managed funds are more responsive to past performance, families have an incentive to allocate IPOs to (and otherwise favor) their named-managed funds. Replacing the objective-time fixed effects with objective-time-family fixed effects to the return gap regression (column (4) of Table 11) reveals that the named versus anonymous difference is slightly larger within families (4.8 basis points per point) than it is between families, which lends support to the favoritism (or return diversion) hypothesis.

As a more direct test of this hypothesis, we ask whether team-managed international funds suffered more dilution due to stale price arbitrage and late trading. Following Zitzewitz (2006), we use Lipper and TrimTabs daily flow data to calculate monthly dilution rates for the period 1998 to 2003. We find that the average (univariate) monthly dilution rate is 9.2 basis points per month in anonymously team-managed funds but only 3.3 basis points per month in named-manager funds. In columns (6) and (7) of Table 11, we report coefficients from pooled regressions that control for fund characteristics. Without the family fixed effects, we find that the coefficient on the team-managed dummy implies 3.0 basis points more dilution per month than in sole-managed funds, but that the

¹⁹Consistent with our finding of lower turnover in anonymously team-managed funds, Almazan et al. (2004) find that multi-manager funds (team and co-managed funds taken together) face more investment restrictions.

difference is not statistically significant. Adding the objective-time-family fixed effects, however, we find a statistically significant difference of 9.9 basis points per month. This suggests that families with a mixture of team-managed and named-manager funds were more willing to permit dilution from stale price arbitrage in their anonymous team-managed funds.

As a final test of the favoritism hypothesis, we ask whether IPO allocations differ across named-manager and team-managed funds. To the extent that named managers have more ability or incentive to ensure they receive IPO allocations or that families want to increase the returns of named-manager funds for marketing reasons, we expect named-manager funds to receive more and more valuable IPO allocations. In Table 12, we conduct our tests for favoritism toward named-manager funds. Following Gaspar, Mass, and Matos (2006) and Reuter (2006), we construct proxies for IPO allocations from reported holdings of recent IPOs. Specifically, we assume that positive holdings of IPOs that occurred during the prior quarter reflect allocations on the IPO offer date. To calculate this proxy for IPO allocations, we merge IPO data from SDC with reported equity holdings data from CDA/Spectrum for our sample of non-speciality domestic equity funds. To determine the degree of underpricing of each IPO, we use data from SDC to calculate the percentage increase from the offer price to the first-day closing price.

We consider four (related) measures of the contribution of IPOs to fund performance. Recognizing that reported holdings of recent IPOs are potentially noisy proxies of actual allocations, in column (1), we begin by focusing on the probability that a fund receives any IPO allocation. The dependent variable is a dummy variable that equals one if fund i reports holding shares in any of the IPOs that occurred during the past quarter. We estimate the specification in column (1) via probit and report marginal effects; standard errors cluster on fund. The coefficient on the anonymous team-managed dummy variable is -1.7 percent and statistically significant at the 5-percent level, suggesting that team-managed funds are less likely to receive IPO allocations. Since only 8.92

percent of funds report holding shares of any recent IPOs, the size of the difference is economically significant.

In column (2), we explore the relative size of IPO allocations to named-manager and team-managed funds. The dependent variable is the ratio of the value of fund i 's holdings of recent IPOs to the fund i 's end-of-quarter TNA. Since this variable equals zero much of the time and cannot be negative, we estimate the coefficients in column (2) via Tobit (and multiply the coefficients by 1000). The negative and statistically significant coefficient on the anonymous team-managed dummy implies that team-managed funds receive slightly smaller IPO allocations than do named-manager funds.

Having found evidence consistent with team-managed funds receiving fewer and smaller IPO allocations than their named-manager peers, we next ask whether team-managed funds are less likely to receive allocations of underpriced IPOs. The dependent variable in column (3) is a dummy variable that equals one if fund i 's reported holdings suggest that it earned positive returns from underpricing during the past quarter. Again, we estimate the specification in column (3) via probit and report marginal effects. The coefficient on the anonymous team-managed dummy variable is -2.7 percent and statistically significant at the 1-percent level, suggesting that team-managed funds are, in fact, slightly less likely to receive allocations of underpriced IPOs.

Finally, we attempt to quantify the impact of IPO allocations on fund returns. The dependent variable in column (4) is the ratio of the total underpricing that we estimate fund i earned over the past quarter based on reported holdings at quarter end to the fund i 's end-of-quarter TNA. Since this variable is positive when the fund is estimated to have earned positive underpricing on its IPO holdings, negative when it is estimated to have earned negative underpricing on its IPO holdings, and zero when the fund does not report holding shares of any recent IPOs, we estimate the coefficients in column (4) via OLS (and multiply them by 1000). The negative coefficient on

the anonymous team-managed dummy indicates that team-managed funds receive less of a boost to their performance from underpriced IPOs than do sole-managed or co-managed funds, but the implied difference in performance of 0.46 basis points per quarter is not economically significant. To confirm this result, we re-estimate specification (4) using a Heckman two stage selection model. (Lacking any variable that we would expect to influence the level of the allocation but not the level of underpricing, identification comes via the assumed bi-variate normality of the error terms in the two equations.) In unreported results, we find that once we properly condition on the differential probability of receiving IPO allocations, there is no additional relation between IPO allocations and fund performance for team-managed funds.

Taken as a whole, the results in this section suggest that team-managed funds earn slightly lower returns than their named-manager peers, but it remains unclear whether the lower returns reflect the weaker incentives faced by members of an anonymous team or strategic behavior by fund families to favor named manager funds for marketing reasons.

3.3 Bargaining power and the downside of named managers

Whereas the results above suggest that naming fund managers can generate substantial benefits in terms of media mentions, inflows, and (perhaps) returns, naming fund managers is likely to entail a significant cost as well. In this section, we ask whether named managers enjoy increased bargaining power following periods of good performance.

Ideally, if we were able to observe wages for both named and anonymous fund managers, we would directly measure the additional costs of retaining named managers after good years. Unfortunately, fund manager wage data are not publicly available and have proven impossible to obtain. We can, however, draw an inference about managerial bargaining power from the inflow-performance relationship. Specifically, we ask how the inflow-performance relationship changes

when a named manager departs a fund. In Table 13, we extend our analysis of monthly net flows by interacting the departure of a named manager over the prior 12 months with the fund’s within-objective performance ranking.²⁰ (By definition, the departure of an unnamed team member is not observable to shareholders or researchers.) The negative and statistically significant coefficients on the interaction term suggest that inflows generated by strong performance are smaller when one or more named manager departs following strong performance. The fact that a successful named manager’s departure reduces fund inflows, everything else equal, suggests that successful named managers have more bargaining power with their firms. This, in turn, suggests that named managers should earn more of the rents accruing to good performance than managers in anonymous team-managed funds.²¹

3.4 Hedge funds and the rise of anonymous teams

Several fund industry participants we interviewed at the beginning of this project stated that competition from the hedge fund industry for managers with strong track records increased substantially over the past decade. To the extent that anonymous team members cannot credibly claim responsibility for (or market) a fund’s track record, anonymity reduces successful managers’ outside employment options.²² In Table 15, we extend the specifications from Table 8 to test whether the use of anonymous teams is correlated with growth in the hedge fund industry.

While overall hedge fund asset growth has been close to monotonic, the growth rate of different

²⁰Qualitatively similar results are obtained when we use returns or log returns instead of the within-objective rank.

²¹Within a sample of sole-managed equity and bond funds, Khorana (2001) finds that fund performance increases when managers depart following periods of below-average performance and decreases when managers depart following periods of above-average performance. Lynch and Musto (2003) find that investors are less likely to withdraw money from a poorly performing fund when they anticipate that the fund will adopt a new strategy. This complements our finding in Table 13 that investors expect good performance to be less persistent when a named manager departs.

²²In the context of mutual fund prospectuses and advertising, managers can only take credit for the track record of a prior fund if the management teams, investment objectives, and strategies of the new and old funds are essentially unchanged. When discussing the precedent set by an SEC No-Action Letter (dated August 7, 1996) to the Bramwell Growth Fund, Pierce (1999) states that “it would be difficult to rely on *Bramwell* to use the performance record of a fund that is run by a committee or by a portfolio manager whose discretion is limited by supervisory approval or other controls” (p. 25).

asset classes has varied at different times (Table 14). After crises in Asia, Russia, and Brazil and the collapse of Long-Term Capital Management in 1997 and 1998, demand for hedge funds in the Emerging Markets and Global Macro categories declined significantly. The asset share of domestic equity hedge funds likewise peaked with the stock market, while debt-oriented hedge funds gained share during the low interest-rate environment between 2002 and 2004. If a successful mutual fund manager is most employable within her broad asset category, competition from the hedge fund industry should have peaked for different mutual fund asset classes at different times.

In the first two columns of Table 15, we test whether funds are more likely to use (or switch to) anonymous teams when same-category hedge fund assets are higher. As in Table 8, the unit of observation is fund i in year t and estimation is via probit. The new independent variable of interest is the natural logarithm of hedge fund assets in the same broad investment objective as fund i , measured at the end of the prior calendar year. Since this variable only varies at the objective-year level, we cannot include objective-year fixed effects. Instead, we include both family-year fixed effects and objective fixed effects. In both columns, the coefficient on same-category hedge fund assets is positive and statistically significant (at the 1-percent and 5-percent levels, lending support to the hypothesis that the rise of hedge funds played a role in the rise of anonymous team management in mutual funds.

To shed further light on this hypothesis, we ask whether the rise of teams was more pronounced in geographic areas with more overlap between mutual funds and hedge funds, since these are the areas where labor market competition for successful managers should be strongest. Data from TASS on the business addresses of hedge funds suggest that the U.S. industry is quite concentrated near New York City, with New York state, Connecticut, and New Jersey accounting for 55, 7, and 3 percent of total assets during our time period.²³ Hand-collected data on mutual fund family

²³Hedge fund employment appears likewise concentrated in the New York area. For example, of the 175 U.S.-based jobs in the hedge fund industry listed on *efinancialcareers.com* on August 14, 2006 for which a location was provided,

locations from the *Nelson Directory of Investment Managers* reveals that the mutual fund industry is concentrated in Boston and New York. These cities account for 24 and 16 percent of the mutual funds assets in our sample.

In columns (3) through (4) of Table 15, we test whether mutual funds in states with large hedge fund industries were more likely to adopt anonymous teams. The new variable of interest is the natural logarithm of hedge fund assets in the same state as fund i at the end of the prior calendar year. Since this variables at the state-year level we're able to include both objective-year fixed effects and family fixed effects. The coefficients on same-state hedge fund assets are positive and statistically significant (at the 1-percent level).

Since most hedge fund assets are located in Boston and New York City, columns (5) and (6) focus on the use of anonymous teams in these cities. We include dummy variables indicating whether fund i is located in Boston or New York City and we interact these city dummy variables with the natural logarithm of hedge fund assets at the end of the prior calendar year. These specifications include objective-year fixed effects and cluster on mutual fund family. The coefficients on the Boston and New York City dummies are negative and statistically significant (at the 10-percent level and below) in both columns. However, consistent with our hypothesis that the rise of anonymous teams is related to the rise of hedge fund assets, we find that the coefficients on our city-hedge fund asset interaction terms are positive and statistically significant (at the 10-percent level and below). Between 1996 and 2002, (lagged) hedge fund assets rose from \$70 billion to \$246 billion. Therefore, based on the coefficients in column (5), the probability of reporting funds as being team-managed increased from 0.035 (-.333 plus 0.087 times $\ln(70)$) in 1996 to 0.144 (-.333 plus 0.087 times $\ln(246)$) in 2002 for funds based in New York City, and from -.083 to -.016 for funds based in Boston. Collectively, the results in Table 15 suggest that the move towards anonymous team

73 percent were in New York and 11 percent in suburban New York. Boston had the second most listings of any major city, with 9 percent.

management was strongest in those asset classes and cities with the most hedge fund assets.

4 Conclusion

As one of its responses to the mutual fund scandal in 2003, the SEC promulgated a rule requiring the disclosure of the identity of the five most important members of a portfolio management team.²⁴ These additional disclosures had not been incorporated into either CRSP or Morningstar data to any significant extent when we first circulated this paper in March 2006. By December 2006, however, Morningstar was reporting manager names for every fund. In particular, for fund formerly listed as anonymously managed, Morningstar now lists as many as 65 manager names. While additional disclosures in little-read Statements of Additional Information would probably have had little impact by themselves, Morningstar's decision has effectively ended the era of anonymous team management. One might expect, however, that the naming of large numbers of co-managers might share some of costs and benefits of anonymous management.

The results in our paper have ambiguous implications for the question of whether mandatory disclosure of manager names is beneficial for the industry or the investing public. On the one hand, we find that named managers earn higher returns, perhaps owing to an incentive effect of track record ownership. This effect is fairly modest, however, and appears mostly due to within family differences in return gaps. This suggests that at least some of the return differences are related to within-family favoritism (in IPO allocations, for example) and so some of the benefits of naming and thus incentivizing formerly anonymous managers might come at the expense of less favoritism for their already named colleagues.

On the other hand, we find that naming managers increases the sensitivity of inflows to their

²⁴"Disclosure Regarding Portfolio Managers of Registered Investment Companies", Security and Exchange Commission Release 33-8458.

retention, which should increase their bargaining power and wages. In addition, naming managers likely increases the differentiation of mutual funds, in that it leads investors to jointly chose firms and managers. These effects help explain why we found expense ratios were 17 basis points higher for named-manager funds and may suggest that eliminating anonymity might put upward pressure on expenses.

Outside the fund industry, firms also face decisions about whether to share credit with their employees and allow them to develop reputations that are independent of the firm. Many CEOs develop such reputations, as do some engineers (e.g., Steve Wozniak) or division heads (e.g. Jamie Dimon, Carly Fiorina, and Lee Iacocca while still at Citigroup, Lucent, and Ford, respectively). For some categories of employees (e.g., print journalists) being allowed such a reputation is the norm, albeit one that some employers deviate from (e.g., *The Economist*). When choosing whether to allow their employees an outside reputation, firms likely face the same basic tradeoff of marketing benefits and retention costs.

On the other hand, one might expect the incentive effects of employee stardom to differ depending on the alignment between an employee's performance for the firm and what generates stardom. For fund manager, the route to stardom is generating high returns and a media profile, which also generates profits for their employer. For journalists, writing high-impact articles likewise serves both the employer's and employee's interests. In contrast, a stardom-seeking CEO, division manager, or engineer might find that maintaining a public profile is distracting from serving employers' goals. Sharing credit can be in the firm's interest, but in many cases, firms need to ensure they retain enough credit for themselves.

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Table 1. The decline of sole managed mutual funds and the rise of anonymous team managed mutual funds, 1993-2004

Panel A. Management Type According to Morningstar

	Adjusted for Changing Definitions			As reported in Morningstar manager name variable						Number of Funds
	Sole	Comanage	Anonymous	1 Manager	2 Managers	3 Managers	4+ Managers	Anonymous	Firm Name	
1993	71.8%	24.5%	3.6%	71.0%	16.7%	0.0%	0.0%	12.2%	0.0%	2,102
1994	70.5%	25.9%	3.6%	69.7%	18.2%	0.0%	0.0%	12.2%	0.0%	2,572
1995	69.0%	27.0%	4.0%	68.1%	18.4%	0.0%	0.0%	13.5%	0.0%	2,866
1996	63.7%	31.2%	5.0%	62.6%	20.5%	0.0%	0.0%	16.9%	0.0%	3,094
1997	57.9%	34.6%	7.5%	57.9%	22.0%	8.2%	4.5%	7.5%	0.0%	3,345
1998	52.3%	37.0%	10.7%	52.3%	23.2%	8.8%	5.0%	10.7%	0.0%	3,827
1999	49.9%	38.2%	11.9%	49.9%	22.8%	9.2%	6.2%	11.9%	0.0%	4,082
2000	47.2%	39.7%	13.1%	47.2%	24.0%	9.2%	6.5%	13.1%	0.0%	4,299
2001	45.4%	38.2%	16.3%	45.4%	22.3%	9.6%	6.3%	16.3%	0.0%	4,415
2002	42.4%	42.8%	14.7%	43.6%	25.5%	11.0%	8.8%	11.1%	0.0%	4,378
2003	41.6%	41.9%	16.5%	41.6%	24.6%	9.8%	7.5%	16.5%	0.0%	4,719
2004	40.6%	41.1%	18.3%	40.6%	23.5%	9.7%	7.8%	18.3%	0.0%	4,931

Panel B. Management Type According to CRSP

	Adjusted for Changing Definitions			As reported in CRSP manager name variable						Number of Funds
	Sole	Comanage	Anonymous	1 Manager	2 Managers	3 Managers	4+ Managers	Anonymous	Firm Name	
1993	79.2%	13.7%	7.1%	74.5%	10.1%	1.8%	0.2%	5.2%	8.3%	2,783
1994	76.4%	16.6%	7.0%	73.2%	12.4%	2.5%	0.6%	5.7%	5.6%	3,222
1995	74.2%	18.8%	6.9%	71.3%	13.8%	3.2%	0.8%	5.7%	5.2%	3,554
1996	68.0%	24.3%	7.7%	65.8%	17.0%	5.7%	0.8%	6.8%	3.9%	3,688
1997	62.3%	29.6%	8.1%	60.9%	20.3%	7.0%	1.8%	7.6%	2.4%	4,266
1998	59.5%	29.6%	11.0%	58.3%	20.8%	6.8%	1.5%	10.5%	2.1%	4,518
1999	53.7%	29.1%	17.3%	53.2%	19.8%	7.9%	1.1%	17.0%	0.9%	4,588
2000	49.3%	28.3%	22.4%	49.3%	20.2%	7.2%	0.9%	22.4%	0.1%	4,968
2001	46.4%	28.3%	25.4%	46.3%	20.7%	6.9%	0.7%	25.3%	0.1%	5,084
2002	42.9%	27.9%	29.2%	42.9%	21.3%	6.1%	0.4%	29.2%	0.1%	4,968
2003	40.5%	28.3%	31.2%	40.5%	20.8%	6.4%	1.1%	31.2%	0.1%	5,573
2004	39.1%	29.9%	31.0%	39.1%	21.2%	6.5%	2.2%	31.0%	0.1%	5,772

Notes: This table reports the percentage of mutual funds that list one manager (sole managed), list two or more named managers (comanaged), or list that they are managed by an anonymous team. Since the Morningstar variables likely better reflect the information available to investors, we use the actual values reported by Morningstar in much of our analysis. However, to better highlight the rise of anonymous team managed funds, the percentages in the first three columns are adjusted for changes in the rules that CRSP or Morningstar use to code manager name.

For the purposes of this table only, we adjust the aggregate Morningstar statistics in 1993-1996 and 2002. In 1993-1996, Morningstar identified any fund with more than two managers as team managed. Therefore, we use the distribution of transitions in management type between 1996-1997 to impute management type in 1993-1996. In 2002, Morningstar was more likely to list 5 or more manager names. Therefore, we adjust the aggregate Morningstar numbers in 2002 by assuming that funds listed as anonymous team managed in 2001 and 2003 should have been classified as anonymous team managed in 2002. In the early part of the sample, CRSP's manager name variable occasionally contains a firm name and no manager names. When we use CRSP manager variables in our analysis, we ignore these observations. However, we use the distribution of transitions from firm names to sole managed, comanaged, and anonymous team management to adjust the aggregate CRSP statistics.

Table 2. Morningstar and CRSP management classification cross-tabs**Panel A. CRSP classification by Morningstar classification, 1993-1996**

Morningstar classification	CRSP classification Number of named managers				Team
	1	2	3	4+	
1 named manager	91%	6%	2%	0%	1%
2 named managers	44%	49%	3%	1%	3%
Team managed	28%	13%	16%	4%	39%

Panel B. CRSP classification by Morningstar classification, 1997-2004

Morningstar classification	CRSP classification Number of named managers				Team
	1	2	3	4+	
1 named manager	82%	8%	2%	0%	8%
2 named managers	21%	62%	6%	0%	11%
3 named managers	17%	15%	40%	1%	26%
4+ named managers	16%	7%	8%	7%	63%
Team managed	17%	6%	3%	1%	73%

Note: Each panel reports a cross tabulation between the number of fund managers according to CRSP and the number of fund managers according to Morningstar. The numbers in each row are scaled so that they sum to 100% (subject to rounding error). For example, of the funds having one named manager according to Morningstar from 1993-5, 89% also have one named manager according to CRSP.

Table 3. Determinants of media mentions, by publication, 1997-2002

	Positive media mentions					
	New York Times (1)	Money Magazine (2)	Kiplinger's Personal (3)	SmartMoney (4)	Consumer Reports (5)	Positive Media (6)
Objective*month combinations with mentions	139	85	199	547	76	799
Observations in those combinations	34,737	9,738	40,264	80,879	11,314	110,212
Anonymous team managed (t-12)	-0.0012 *** (0.0002)	-0.0055 ** (0.0020)	-0.0007 *** (0.0002)	-0.0014 *** (0.0004)	-0.0008 (0.0010)	-0.0025 *** (0.0005)
Co-managed (t-12)	-0.0008 *** (0.0002)	0.0009 (0.0019)	-0.0005 ** (0.0002)	-0.0004 (0.0003)	-0.0015 * (0.0010)	-0.0011 ** (0.0005)
No Load (t-12)	0.0001 (0.0003)	0.0098 *** (0.0032)	0.0017 *** (0.0007)	0.0022 *** (0.0006)	0.0069 *** (0.0024)	0.0056 *** (0.0010)
Expense Ratio (t-12)	0.0002 * (0.0001)	0.0018 ** (0.0008)	0.0003 *** (0.0001)	0.0006 *** (0.0002)	0.0006 (0.0006)	0.0010 *** (0.0003)
12b-1 Fee (t-12)	-0.0007 (0.0005)	-0.0135 *** (0.0058)	-0.0023 ** (0.0010)	-0.0012 (0.0014)	-0.0312 *** (0.0086)	-0.0065 *** (0.0020)
Ln Fund TNA (t-1)	0.0004 *** (0.0001)	0.0105 *** (0.0019)	0.0009 *** (0.0002)	0.0024 *** (0.0002)	0.0026 *** (0.0009)	0.0039 *** (0.0003)
Ln Family TNA (t-1)	-0.0003 *** (0.0001)	-0.0033 *** (0.0007)	-0.0004 *** (0.0001)	-0.0007 *** (0.0002)	-0.0008 ** (0.0004)	-0.0012 *** (0.0002)
Turnover (t-12)	-0.0001 (0.0001)	-0.0015 (0.0010)	-0.0001 (0.0001)	-0.0002 (0.0001)	-0.0006 (0.0004)	-0.0004 ** (0.0002)
Fund age (t)	-0.0000 (0.0000)	-0.0001 (0.0001)	0.0000 (0.0000)	-0.0000 (0.0000)	0.0000 (0.0000)	-0.0000 (0.0000)
Net return (t-12 to t-1)	0.0067 *** (0.0010)	-0.0002 (0.0028)	0.0033 *** (0.0010)	0.0075 *** (0.0013)	0.0025 (0.0026)	0.0100 *** (0.0014)
Net flows (t-12 to t-1)	0.0007 *** (0.0002)	0.0039 *** (0.0016)	0.0009 *** (0.0002)	0.0022 *** (0.0003)	0.0035 *** (0.0012)	0.0034 *** (0.0004)
Prior-year morningstar rating: 1 star	-0.0022 *** (0.0009)	-0.0175 *** (0.0065)	-0.0024 ** (0.0012)	-0.0005 (0.0010)	0.0122 ** (0.0043)	-0.0025 * (0.0013)
Prior-year morningstar rating: 2 stars	-0.0003 (0.0006)	-0.0085 *** (0.0034)	-0.0012 ** (0.0005)	-0.0008 (0.0008)	0.0142 *** (0.0042)	-0.0013 (0.0009)
Prior-year morningstar rating: 3 stars	0.0010 ** (0.0004)	-0.0036 (0.0024)	-0.0012 *** (0.0004)	-0.0009 (0.0007)	0.0208 *** (0.0049)	0.0008 (0.0008)
Prior-year morningstar rating: 4 stars	0.0017 *** (0.0005)	0.0020 (0.0027)	0.0002 (0.0003)	0.0011 * (0.0006)	0.0247 *** (0.0057)	0.0045 *** (0.0008)
Prior-year morningstar rating: 5 stars	0.0022 *** (0.0005)	0.0061 ** (0.0030)	0.0015 *** (0.0005)	0.0038 *** (0.0006)	0.0269 *** (0.0063)	0.0082 *** (0.0009)
Family's print advertising dollars (t-12 to t-1)	0.00002 (0.00005)	-0.00042 ** (0.00022)	-0.00005 *** (0.00002)	-0.00006 * (0.00003)	0.00020 *** (0.00010)	0.00007 (0.00007)
Family's nonprint advertising dollars (t-12 to t-1)	0.00001 (0.00004)	-0.00043 ** (0.00021)	-0.00004 ** (0.00002)	-0.00005 (0.00004)	0.00016 (0.00013)	-0.00004 (0.00006)
Own publication advertising dollars (t-12 to t-1)	-0.0005 (0.0004)	0.0046 *** (0.0012)	0.0015 *** (0.0005)	0.0027 *** (0.0005)		
Pseudo R2	0.1816	0.3404	0.2978	0.2579	0.3604	0.2893
Observed probability	0.0044	0.0459	0.0094	0.0134	0.0546	0.0036
Predicted probability (at x-bar)	0.0012	0.0066	0.0010	0.0026	0.0036	0.0043

Note: Each column reports marginal effects from a probit regression estimated for positive media mentions in a single publication or for the set of all positive media mentions. We include a separate fixed effect for each investment objective each month. "Anonymous team managed (t-12)" is a dummy variable that equals one if Morningstar lists fund *i* as being managed by a team of unnamed managers in month t-12. "Co-managed (t-12)" is a dummy variable that equals one if each column reports coefficients from a probit regression estimated for positive media mentions in a single publication or for the set of all positive media mentions. We include a separate fixed effect for each investment objective each month. "Anonymous team managed (t-12)" is a dummy variable that equals one if Morningstar lists fund *i* as being managed by a team of unnamed managers in month t-12. "Co-managed (t-12)" is a dummy variable that equals one if Morningstar lists fund *i* as being managed by multiple named managers in month t-12. Fund characteristics come from CRSP. "No Load (t-12)" is a dummy variable that equals one if CRSP lists fund *i* as charging a sales commission. "Expense ratio (t-12)" and "12b-1 fee (t-12)" are fund's lagged expense ratio and 12b-1 fee.

Log Fund TNA (t-1) and "Log Family TNA (t-1)" are the natural logarithm of dollars under management by fund *i* and by its family in month t-1. "Turnover (t-12)" is lagged portfolio turnover. "Fund age in years (t)" is the number of years between fund *i*'s inception (according to CRSP) and month t. "Net Returns (t-12 to t-1)" is defined as the natural logarithm of one plus the return of fund-*i* between months t-12 and t-1. "Net Flows (t-12 to t-1)" is defined as the natural logarithm of one plus the growth in fund-*i*'s TNA between months t-12 and t-1 minus "Net Returns (t-12 to t-1)". It is the continuously compounded growth in assets minus the continuously compounded net return. Morningstar lists fund *i* as being managed by multiple named managers in month t-12.

Morningstar ratings from December of the prior year are used to create five dummy variables (corresponding to ratings between one and five stars). Since Morningstar ratings are awarded at the share class level, these dummy variables are then multiplied by the fraction of fund *i*'s dollars under management that receive each rating. "Family's print advertising to assets ratio (t-12 to t-1)" is defined as family *i*'s total print advertising expenditures between months t-12 and t-1 divided by the average assets under management in family *i* during the same twelve-month period. "Own publication advertising (t-12 to t-1)" is defined as family *j*'s total advertising expenditure in publication between months t-12 and t-1. We exclude this variable when predicting media mentions in Consumer Reports (which does not accept advertising) and in the set of all five publications. The advertising data were acquired from Competitive Media Research and are described in Reuter and Zitzewitz (2006); they are measured in millions of dollars. Standard errors cluster on mutual fund family and are reported in parentheses. Significance at the 10-percent, 5-percent, and 1-percent levels are denoted by *, **, and ***.

Table 4. Determinants of media mentions, by article type, 1997-2002

	Mentions in Kiplinger's and SmartMoney, by article type				Morningstar ratings	
	Single Family/Fund (1)	Investment Theme (2)	General Recommendations (3)	Negative (4)	1 Star (5)	5 Stars (6)
Objective*month combinations with mentions	162	233	414	272	1,471	1,838
Observations in those combinations	32,371	33,523	71,378	47,714	106,574	133,389
Anonymous team managed (t-12)	-0.0017 *** (0.0004)	-0.0008 (0.0005)	-0.0009 *** (0.0003)	-0.0016 *** (0.0004)	-0.0041 (0.0037)	-0.0028 (0.0042)
Co-managed (t-12)	-0.0010 *** (0.0003)	-0.0001 (0.0005)	-0.0004 (0.0002)	-0.0007 * (0.0004)	0.0033 (0.0025)	-0.0097 *** (0.0031)
No Load (t-12)	0.0021 *** (0.0008)	0.0014 ** (0.0006)	0.0024 *** (0.0005)	0.0009 * (0.0005)	0.0060 * (0.0034)	0.0279 *** (0.0060)
Expense Ratio (t-12)	0.0002 ** (0.0001)	0.0008 *** (0.0002)	0.0003 *** (0.0001)	0.0007 *** (0.0002)	0.0092 *** (0.0030)	0.0020 (0.0023)
12b-1 Fee (t-12)	-0.0000 (0.0011)	-0.0064 *** (0.0016)	-0.0002 (0.0009)	-0.0026 *** (0.0010)	-0.0155 (0.0095)	-0.0339 *** (0.0131)
Ln Fund TNA (t-1)	0.0009 *** (0.0002)	0.0024 *** (0.0003)	0.0016 *** (0.0002)	0.0021 *** (0.0002)	-0.0015 (0.0010)	0.0023 ** (0.0012)
Ln Family TNA (t-1)	-0.0003 ** (0.0001)	-0.0008 *** (0.0002)	-0.0004 *** (0.0001)	-0.0003 * (0.0002)	-0.0030 *** (0.0008)	-0.0022 ** (0.0010)
Turnover (t-12)	-0.0002 (0.0001)	-0.0001 (0.0001)	-0.0002 (0.0001)	0.0001 * (0.0000)	0.0001 (0.0001)	0.0001 (0.0006)
Fund age (t)	0.0000 (0.0000)	-0.0000 (0.0000)	0.0000 (0.0000)	0.0000 *** (0.0000)	-0.0001 (0.0001)	-0.0004 ** (0.0002)
Net return (t-12 to t-1)	0.0072 *** (0.0014)	0.0081 *** (0.0022)	0.0040 *** (0.0009)	-0.0190 *** (0.0023)	-0.0972 *** (0.0118)	0.1486 *** (0.0145)
Net flows (t-12 to t-1)	0.0009 *** (0.0003)	0.0026 *** (0.0004)	0.0014 *** (0.0002)	-0.0026 *** (0.0007)	-0.0130 *** (0.0034)	0.0090 *** (0.0023)
Prior-year morningstar rating: 1 star	-0.0012 (0.0010)	-0.0024 (0.0020)	-0.0005 (0.0007)	0.0010 (0.0008)	0.0532 *** (0.0065)	-0.0601 *** (0.0113)
Prior-year morningstar rating: 2 stars	-0.0006 (0.0008)	-0.0011 (0.0011)	-0.0010 * (0.0005)	-0.0004 (0.0007)	0.0140 *** (0.0042)	-0.0341 *** (0.0063)
Prior-year morningstar rating: 3 stars	-0.0010 (0.0007)	0.0002 (0.0009)	-0.0012 ** (0.0005)	-0.0021 *** (0.0007)	-0.0181 *** (0.0046)	-0.0203 *** (0.0047)
Prior-year morningstar rating: 4 stars	-0.0005 (0.0006)	0.0021 ** (0.0009)	0.0007 * (0.0004)	-0.0035 *** (0.0009)	-0.0207 *** (0.0053)	0.0152 *** (0.0040)
Prior-year morningstar rating: 5 stars	0.0010 (0.0006)	0.0043 *** (0.0009)	0.0026 *** (0.0005)	-0.0015 (0.0010)	-0.0182 *** (0.0064)	0.0583 *** (0.0062)
Family's print advertising dollars (t-12 to t-1)	0.00008 ** (0.00004)	0.00004 (0.00003)	0.00001 (0.00004)	0.00009 ** (0.00004)	0.00015 (0.00025)	0.00070 *** (0.00022)
Family's nonprint advertising dollars (t-12 to t-1)	0.00007 ** (0.00003)	-0.00015 ** (0.00008)	-0.00004 (0.00003)	0.00013 * (0.00007)	-0.00007 (0.00066)	-0.00044 (0.00114)
Pseudo R2	0.2016	0.2606	0.2771	0.2173	0.4162	0.3558
Observed probability	0.0062	0.0136	0.0111	0.0105	0.0778	0.0835
Predicted probability (at x-bar)	0.0017	0.0026	0.0016	0.0028	0.0169	0.0213

Note: Each column reports marginal effects from a probit regression. The first three columns predict positive mentions in Kiplinger's or SmartMoney in (1) articles that focus on a single family or fund, (2) articles that focus on a single investment theme, and (3) articles that make general investment recommendations. Column (4) predicts negative mentions in Kiplinger's and SmartMoney. Columns (5) and (6) predict Morningstar ratings of one and five stars, respectively. The independent variables are defined in the notes to Table 3. As in Table 3, we include a separate fixed effect for each investment objective each month. Standard errors cluster on mutual fund family and are reported in parentheses. Significance at the 10-percent, 5-percent, and 1-percent levels are denoted by *, **, and ***.

Table 5. Determinants of positive media mentions, by year, 1997-2002

	Positive media mentions in NYT, Money, Kiplinger's, SmartMoney, or Consumer Reports					
	1997 (1)	1998 (2)	1999 (3)	2000 (4)	2001 (5)	2002 (6)
Objective*month combinations with mentions	175	143	96	133	106	143
Observations in those combinations	17,050	17,269	15,467	19,201	17,757	23,636
Anonymous team managed (t-12)	-0.0005 (0.0018)	-0.0037 *** (0.0009)	-0.0034 *** (0.0009)	-0.0042 *** (0.0008)	-0.0012 ** (0.0004)	-0.0019 *** (0.0005)
Co-managed (t-12)	-0.0015 (0.0015)	-0.0011 (0.0008)	-0.0013 * (0.0008)	-0.0004 (0.0008)	-0.0004 (0.0003)	-0.0015 *** (0.0005)
No Load (t-12)	0.0131 *** (0.0027)	0.0071 *** (0.0013)	0.0051 *** (0.0015)	0.0074 *** (0.0016)	0.0018 *** (0.0006)	0.0016 ** (0.0007)
Expense Ratio (t-12)	0.0057 *** (0.0020)	0.0005 * (0.0003)	0.0011 *** (0.0004)	0.0020 *** (0.0006)	0.0008 *** (0.0002)	-0.0001 (0.0008)
12b-1 Fee (t-12)	-0.0093 * (0.0051)	-0.0057 ** (0.0025)	-0.0031 (0.0026)	-0.0061 *** (0.0024)	-0.0044 *** (0.0012)	-0.0070 *** (0.0016)
Ln Fund TNA (t-1)	0.0086 *** (0.0010)	0.0040 *** (0.0006)	0.0029 *** (0.0005)	0.0040 *** (0.0005)	0.0015 *** (0.0003)	0.0027 *** (0.0004)
Ln Family TNA (t-1)	-0.0022 *** (0.0008)	-0.0015 *** (0.0004)	-0.0009 *** (0.0003)	-0.0011 *** (0.0004)	-0.0006 *** (0.0002)	-0.0007 *** (0.0002)
Turnover (t-12)	-0.0010 (0.0009)	-0.0004 (0.0005)	-0.0009 ** (0.0004)	-0.0002 (0.0002)	-0.0001 (0.0001)	-0.0002 (0.0002)
Fund age (t)	0.0001 (0.0001)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	-0.0000 (0.0000)	0.0000 (0.0000)
Net return (t-12 to t-1)	0.0292 ** (0.0128)	0.0173 *** (0.0068)	0.0103 *** (0.0035)	0.0059 *** (0.0024)	0.0068 *** (0.0017)	0.0019 (0.0019)
Net flows (t-12 to t-1)	0.0087 *** (0.0016)	0.0039 *** (0.0008)	0.0026 ** (0.0011)	0.0013 (0.0008)	0.0014 *** (0.0004)	0.0021 *** (0.0004)
Prior-year morningstar rating: 1 star	0.0073 (0.0061)	-0.0004 (0.0027)	-0.0081 ** (0.0034)	-0.0050 * (0.0029)	-0.0051 *** (0.0020)	-0.0025 (0.0018)
Prior-year morningstar rating: 2 stars	0.0030 (0.0037)	-0.0012 (0.0019)	-0.0022 (0.0018)	-0.0000 (0.0018)	-0.0013 (0.0010)	-0.0033 *** (0.0012)
Prior-year morningstar rating: 3 stars	0.0048 (0.0030)	-0.0015 (0.0018)	0.0027 * (0.0016)	0.0018 (0.0015)	0.0001 (0.0008)	-0.0015 (0.0011)
Prior-year morningstar rating: 4 stars	0.0127 *** (0.0031)	0.0039 ** (0.0017)	0.0048 *** (0.0018)	0.0044 *** (0.0015)	0.0016 ** (0.0007)	0.0015 (0.0011)
Prior-year morningstar rating: 5 stars	0.0193 *** (0.0034)	0.0084 *** (0.0018)	0.0065 *** (0.0020)	0.0081 *** (0.0019)	0.0035 *** (0.0009)	0.0039 *** (0.0013)
Family's print advertising dollars (t-12 to t-1)	0.00030 * (0.00016)	0.00026 ** (0.00011)	0.00008 (0.00007)	-0.00002 (0.00006)	0.00001 (0.00002)	0.00012 * (0.00007)
Family's nonprint advertising dollars (t-12 to t-1)	-0.00044 (0.00048)	0.00017 (0.00023)	0.00004 (0.00009)	0.00008 (0.00006)	-0.00002 (0.00002)	-0.00026 *** (0.00009)
Pseudo R2	0.2855	0.2972	0.2889	0.2689	0.3412	0.3111
Observed probability	0.0361	0.0254	0.0215	0.0225	0.0194	0.0190
Predicted probability (at x-bar)	0.0089	0.0047	0.0038	0.0047	0.0014	0.0024

Note: Each column reports marginal effects from a probit regression that predicts positive media mentions in The New York Times' "Investing With" column, Money Magazine's Money 100 list, Kiplinger's, SmartMoney, or Consumer Reports in a given month in a given year. The independent variables are defined in the notes to Table 3. As in Table 3, we include a separate fixed effect for each investment objective each month. Standard errors cluster on mutual fund family and are reported in parentheses. Significance at the 10-percent, 5-percent, and 1-percent levels is denoted by *, **, and ***.

Table 6. Mentions in Kiplinger's and SmartMoney by article type

Year	Total positive mentions	Positive mentions in Single family/ fund articles	Share
1996	614	86	14.0%
1997	773	93	12.0%
1998	495	124	25.1%
1999	253	68	26.9%
2000	372	79	21.2%
2001	283	24	8.5%
2002	436	51	11.7%

Note: This table documents a rise and then fall between 1996 and 2002 in the fraction of positive mentions in Kiplinger's and SmartMoney that appear in articles that focus on a single family or fund.

Table 7. Determinants of monthly net flows estimated using Fama MacBeth

Sample Period: Sample of Funds:	1994-2004			1997-2002			1997-2002		
	All (1)	No Load (2)	Load (3)	All (4)	No Load (5)	Load (6)	All (7)	No Load (8)	Load (9)
Anonymous team managed (t-12)	-0.0019 *** (0.0005)	-0.0027 *** (0.0008)	-0.0014 *** (0.0005)	-0.0027 *** (0.0007)	-0.0045 *** (0.0010)	-0.0009 (0.0007)	-0.0024 *** (0.0007)	-0.0038 *** (0.0010)	-0.0007 (0.0007)
Co-managed (t-12)	-0.0005 * (0.0003)	-0.0016 *** (0.0004)	0.0002 (0.0004)	-0.0007 ** (0.0003)	-0.0016 *** (0.0005)	0.0001 (0.0005)	-0.0005 (0.0003)	-0.0013 ** (0.0005)	0.0002 (0.0005)
No Load (t-12)	0.0004 (0.0004)			-0.0008 * (0.0004)			-0.0017 *** (0.0004)		
Expense Ratio (t-12)	-0.0005 (0.0006)	0.0001 (0.0007)	-0.0010 (0.0007)	-0.0019 *** (0.0006)	-0.0012 * (0.0007)	-0.0028 *** (0.0008)	-0.0017 *** (0.0006)	-0.0010 (0.0007)	-0.0025 *** (0.0007)
12b-1 Fee (t-12)	-0.0004 (0.0009)	0.0006 (0.0018)	-0.0001 (0.0010)	0.0008 (0.0010)	-0.0006 (0.0020)	0.0018 (0.0011)	0.0016 (0.0010)	0.0009 (0.0020)	0.0022 * (0.0011)
Ln Fund TNA (t-1)	-0.0016 *** (0.0001)	-0.0017 *** (0.0002)	-0.0016 *** (0.0002)	-0.0015 *** (0.0002)	-0.0015 *** (0.0002)	-0.0015 *** (0.0002)	-0.0022 *** (0.0002)	-0.0024 *** (0.0003)	-0.0020 *** (0.0002)
Ln Family TNA (t-1)	0.0008 *** (0.0001)	0.0009 *** (0.0001)	0.0007 *** (0.0001)	0.0006 *** (0.0001)	0.0008 *** (0.0001)	0.0004 ** (0.0002)	0.0007 *** (0.0001)	0.0009 *** (0.0002)	0.0005 *** (0.0002)
Turnover (t-12)	-0.0007 *** (0.0002)	-0.0007 ** (0.0003)	-0.0006 *** (0.0002)	-0.0004 (0.0003)	-0.0005 (0.0004)	0.0001 (0.0002)	-0.0004 (0.0003)	-0.0005 (0.0004)	0.0002 (0.0002)
Fund age (t)	0.0000 * (0.0000)	-0.0001 *** (0.0000)	0.0000 (0.0000)	0.0000 * (0.0000)	-0.0001 *** (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 (0.0000)	0.0000 ** (0.0000)
Net flows (t-12 to t-1)	0.0302 *** (0.0007)	0.0278 *** (0.0010)	0.0322 *** (0.0010)	0.0303 *** (0.0010)	0.0276 *** (0.0013)	0.0331 *** (0.0013)	0.0282 *** (0.0010)	0.0255 *** (0.0014)	0.0308 *** (0.0013)
Net return (t-12 to t-1)	0.0642 *** (0.0044)	0.0676 *** (0.0060)	0.0626 *** (0.0043)	0.0542 *** (0.0053)	0.0565 *** (0.0063)	0.0520 *** (0.0051)	0.0514 *** (0.0050)	0.0527 *** (0.0061)	0.0502 *** (0.0048)
Control for prior-year Morningstar ratings?	No	No	No	No	No	No	Yes	Yes	Yes
Control for prior media mentions?	No	No	No	No	No	No	Yes	Yes	Yes
Number of months	132	132	132	72	72	72	72	72	72

Note: In this table, we estimate the determinants of monthly net flows via Fama MacBeth. The dependent variable is the natural logarithm of 1 plus the change in TNA between months t and t+1 minus the natural logarithm of 1 plus the fund's return between months t and t+1, which is the continuously compounded rate of growth in the fund assets minus the continuously compounded monthly return. In this table, we limit the sample to the 99.84 percent of observations with continuously compounded inflows between -100 percent and +100 percent. The independent variables are defined in the notes to Table 3. Columns (4) through (6) restrict the sample to 1997-2002, when we possess lagged Morningstar ratings and lagged media mentions. Columns (7) through (9) control for the prior-year's Morningstar ratings and media mentions in NYT, Money, Kiplinger's, SmartMoney, and Consumer Report between months t-11 and t. Significance at the 10-percent, 5-percent, and 1-percent levels is denoted by *, **, and ***.

Table 8. Determinants of anonymous team management, 1994-2004

Dependent Variable:	Anonymous team managed (t)				
	(1)	(2)	(3)	(4)	(5)
Panel A. Levels					
Index Fund (t-12)	0.073 *	0.069 *	0.048	0.162 ***	0.248 ***
No Load (t-12)	0.012	0.013	0.008	0.009	0.004
Expense ratio (t-12)	-0.061 ***	-0.058 ***	-0.076 ***	-0.006	-0.026 ***
12b-1 fee (t-12)	0.042	0.023	0.034	-0.010	0.029
Ln Fund TNA (t-1)	-0.001	-0.001	-0.002	-0.005 ***	-0.005 **
Ln Family TNA (t-1)	-0.009 *	-0.009 *	-0.009 *		
Turnover (t-12)	0.004 *	0.004 *	0.006 **	0.003 ***	0.002
Fund age (t)	-0.002 **	-0.002 **	-0.002 **	-0.001 ***	-0.001 ***
Net flow (t-12 to t-1)	-0.000	0.002	-0.000	0.006 *	0.009
Net return (t-12 to t-1)	-0.011	-0.026 **	-0.070 ***	-0.022 *	-0.067 ***
Fixed effects	--	Year	Obj*Year	Family & Year	Family*Year
Clustering	Family	Family	Family	--	--
Pseudo R2	0.0249	0.0358	0.0618	0.2761	0.2443
Sample size	31363	31363	30080	24939	13994
Panel B. Changes					
Anonymous team managed (t-12)	0.742 ***	0.769 ***	0.785 ***	0.655 ***	0.856 ***
Co-managed (t-12)	0.025 ***	0.020 ***	0.018 ***	0.017 ***	0.027 ***
Fund created in last 12 months (t)	0.109 ***	0.110 ***	0.105 ***	0.065 ***	0.217 ***
Index Fund (t-12)	0.031 *	0.025	0.018	0.073 ***	0.107 ***
No Load (t-12)	0.002	0.001	-0.001	0.005	0.001
Expense ratio (t-12)	-0.029 ***	-0.025 ***	-0.031 ***	-0.005	-0.017 **
12b-1 fee (t-12)	0.012	-0.000	0.004	-0.009	0.027
Ln Fund TNA (t-1)	-0.003 *	-0.002	-0.003 *	-0.004 ***	-0.003
Ln Family TNA (t-1)	-0.003 *	-0.003 *	-0.003 *		
Turnover (t-12)	0.001	0.001	0.002 **	0.001	0.001
Fund age (t)	-0.001 ***	-0.001 ***	-0.001 ***	-0.000	-0.000
Net flow (t-12 to t-1)	-0.001	0.000	0.000	0.005	0.010 *
Net return (t-12 to t-1)	-0.002	-0.010	-0.052 ***	-0.015	-0.046 **
Fixed Effects?	--	Year	Obj*Year	Family & Year	Family*Year
Clustering	Family	Family	Family	--	--
Pseudo R2	0.4631	0.4862	0.5085	0.5324	0.5823
Sample size	31363	31363	30080	24939	13994

Note: This table reports marginal effects estimated via probit. The unit of observation is fund *i* in January of each year. The dependent variable equals 1 if MSTAR lists fund *i* as anonymously team managed. All independent variables except fund age are measured during the prior calendar year. In specifications that do not include family or family*year fixed effects, significance is based on standard errors that cluster on family. In specifications do not include family or family*year fixed effects, significance is based on heteroscedasticity robust standard errors. Significance at the 10-, 5-, and 1-percent levels (in two-sided tests) is denoted by *, **, and ***.

Table 9. Instrumental variables models of media mentions and inflows

Specification: Dependent variable and time period Sample of Funds:	Panel regression Inflows, no load funds (1994-2004)			Panel regression Inflows, load funds (1994-2004)			Linear probability model Any positive media mention (1996-2002)		
	OLS	Firm IV	CRSP IV	OLS	Firm IV	CRSP IV	OLS	Firm IV	CRSP IV
	(1)	(2)	(3)	(4)	(5)	(6)	(4)	(5)	(6)
Anonymous team managed (t-12)	-0.0027 *** (0.0007)	-0.0028 *** (0.0010)	-0.0034 ** (0.0015)	-0.0009 ** (0.0005)	0.0005 (0.0008)	0.0021 * (0.0011)	-0.0080 *** (0.0024)	-0.0107 *** (0.0038)	-0.0067 (0.0062)
Co-managed (t-12)	-0.0010 ** (0.0004)	-0.0015 ** (0.0006)	0.0005 (0.0007)	0.0003 (0.0003)	0.0019 *** (0.0005)	-0.0004 (0.0005)	-0.0038 *** (0.0019)	-0.0023 (0.0035)	-0.0034 (0.0035)
No Load (t-12)							0.0191 ** (0.0029)	0.0190 ** (0.0029)	0.0192 *** (0.0029)
Expense Ratio (t-12)	0.0003 (0.0003)	0.0000 (0.0003)	0.0000 (0.0003)	0.0010 (0.0008)	0.0008 (0.0006)	0.0009 (0.0006)	0.0037 *** (0.0016)	0.0036 *** (0.0015)	0.0035 ** (0.0015)
12b-1 Fee (t-12)	0.0009 (0.0015)	-0.0000 (0.0016)	0.0005 (0.0016)	-0.0017 * (0.0010)	-0.0040 *** (0.0009)	-0.0035 *** (0.0009)	-0.0163 *** (0.0052)	-0.0165 *** (0.0052)	-0.0163 *** (0.0052)
Ln Fund TNA (t-1)	-0.0015 *** (0.0002)	-0.0014 *** (0.0002)	-0.0014 *** (0.0002)	-0.0018 *** (0.0001)	-0.0014 *** (0.0001)	-0.0014 *** (0.0001)	0.0115 *** (0.0012)	0.0115 *** (0.0012)	0.0115 *** (0.0012)
Ln Family TNA (t-1)	0.0011 *** (0.0001)	0.0008 *** (0.0001)	0.0008 *** (0.0001)	0.0010 *** (0.0001)	0.0006 *** (0.0001)	0.0006 *** (0.0001)	-0.0031 *** (0.0007)	-0.0031 *** (0.0007)	-0.0031 *** (0.0007)
Turnover (t-12)	-0.0004 (0.0003)	-0.0004 (0.0003)	-0.0004 (0.0003)	-0.0001 (0.0002)	-0.0004 ** (0.0002)	-0.0004 * (0.0002)	-0.0003 *** (0.0002)	-0.0003 *** (0.0002)	-0.0003 * (0.0002)
Fund age (t)	-0.0001 *** (0.0000)	-0.0001 *** (0.0000)	-0.0001 *** (0.0000)	-0.0000 (0.0000)	8.3600 *** (0.0000)	0.0000 (0.0000)	8.7300 *** (0.0001)	3.6600 *** (0.0001)	5.3300 *** (0.0001)
Net flows (t-12 to t-1)	0.0270 *** (0.0009)	0.0290 *** (0.0009)	0.0290 *** (0.0009)	0.0316 *** (0.0007)	0.0346 *** (0.0006)	0.0347 ** (0.0006)	0.0107 *** (0.0017)	0.0108 *** (0.0017)	0.0109 *** (0.0017)
Net return (t-12 to t-1)	0.0651 *** (0.0028)	0.0294 *** (0.0013)	0.0293 *** (0.0013)	0.0624 *** (0.0017)	0.0280 (0.0008)	0.0276 ** (0.0008)	0.0281 ** (0.0047)	0.0283 ** (0.0048)	0.0281 ** (0.0047)
Control for prior-year Morningstar ratings?	No	No	No	No	No	No	Yes	Yes	Yes
Objective-month fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	162304	162304	162304	217952	217952	217952	116542	116542	116542

Note: In this table, we estimate OLS and instrumental variables versions of regressions predicting inflows and media mentions. In Firm IV columns, fund-level team and co-management variables are instrumented for with the fund firms' average usage of team and co-management in that month. In "CRSP IV" columns, team and co-management as reported by Morningstar is instrumented for with the same variables as reported by CRSP. Following the advice of Angrist and Krueger (2001), we predict media mentions using a linear probability model, in order to avoid the inference problems associated with non-linear instrumental variables models. Significance at the 10-, 5-, and 1-percent levels is denoted by *, **, and ***.

Table 10. Anonymous Team Management, Fund Returns, and Fund Characteristics, 1994-2004

Dependent Variable: Sample Frequency: Sample Period:	Net Return monthly 1994-2004 (1)	CAPM Alpha monthly 1994-2004 (2)	Carhart Alpha monthly 1994-2004 (3)	Exp Ratio annual 1994-2004 (4)	Turnover annual 1994-2004 (5)	# Stocks annual 1994-2002 (6)
Anonymous team managed (t-12)	-0.011 (0.021)	-0.046 ** (0.023)	-0.037 * (0.020)	-0.161 *** (0.029)	-14.011 *** (3.579)	41.689 *** (13.771)
Co-managed (t-12)	0.007 (0.016)	-0.005 (0.017)	-0.012 (0.015)	-0.018 (0.026)	-7.873 ** (3.399)	7.601 (5.544)
No Load (t-12)	0.023	0.030	0.018	-0.348 ***	10.690 ***	10.426 *
Expense ratio (t-12)	-0.040 **	-0.083 ***	0.013 ***		9.201	-9.031
12b-1 fee (t-12)	-0.023	-0.037	0.037		2.303	-20.429
Ln Fund TNA (t-1)	-0.049 ***	-0.031 ***	0.006 ***	-0.114 ***	-7.364 ***	13.172 ***
Ln Family TNA (t-1)	0.025 ***	0.012 **	0.004	-0.075 ***	3.646 ***	6.582 ***
Turnover (t-12)	-0.000 ***	-0.000 ***	0.000 ***	0.001 ***		-0.038 **
Fund age (t)	0.000	-0.001	0.001 ***	0.005 **	0.039	-0.723 ***
Net flow (t-12 to t-1)	-0.002 ***	-0.001 ***	0.000	0.001 ***	-0.047 *	-0.064 **
Net return (t-12 to t-1)	0.027 ***	0.015 ***	0.001 ***	-0.009 ***	-0.386 ***	0.024
Objective*Month Fixed Effects?	Yes	Yes	Yes	--	--	--
Objective*Year Fixed Effects?	--	--	--	Yes	Yes	Yes
Clustering	Fund	Fund	Fund	Fund	Fund	Fund
Sample size	142031	142031	142031	11613	11613	9065

Note: This table estimates pooled regressions. The sample is restricted to actively managed, non-specialty domestic equity funds for which we can estimate risk-adjusted returns. For the return measures, the unit of observation is fund *i* in month *t*. Returns are measured as percentage points per month. For the expense ratio, turnover, and number of stock regressions, the unit of observation is fund *i* in January of year *t*. Expense ratio and turnover are measured as percentage points per year, while number of stocks is the number of US stocks disclosed in the fund's most recent N-30D. All independent variables except fund age are lagged. Specifications (1), (2), and (3) include S&P investment objective-by-month fixed effects; other specifications (4), (5), and (6) include year-by-month fixed effects. Standard errors cluster on fund. Significance at the 10-, 5-, and 1-percent levels is denoted by *, **, and ***.

Table 11. Return gap and dilution due to stale price arbitrage and late trading

Asset class Dependent Variable: Sample Frequency: Sample Period:	Domestic non-specialized equity			Return Gap monthly 1994-2002 (4)	Returns monthly 1998-2003 (5)	International equity	
	Net Return monthly 1994-2002 (1)	Prior holdings monthly 1994-2002 (2)	Return Gap monthly 1994-2002 (3)			Dilution monthly 1998-2003 (6)	Dilution monthly 1998-2003 (7)
Anonymous team managed (t-12)	0.000 (0.027)	0.035 (0.029)	-0.033 * (0.020)	-0.048 ** (0.024)	-0.053 (0.108)	-0.030 (0.024)	-0.099 ** (0.042)
Co-managed (t-12)	0.005 (0.021)	0.004 (0.022)	0.000 (0.013)	-0.002 (0.015)	-0.136 (0.085)	-0.014 (0.016)	-0.045 (0.040)
Objective*Month Fixed Effects?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Family Fixed Effects?	--	--	--	Yes	--	--	Yes
Clustering	Fund	Fund	Fund	Fund	Fund	Fund	Fund
Sample size	96008	96008	96008	96008	6448	6448	6448

Note: This table estimates pooled regressions which contain the same control variables as the regressions in Table 10. The sample in specifications (1) through (4) is restricted non-specialized domestic equity for which we possess matched holdings data and for which we are able to estimate risk-adjusted returns. Prior holdings and return gap are calculated as in Kacperczyk, Sialm, and Zheng (2006): prior holdings return is the returns of the holdings from the most recent disclosure date and return gap is the difference between gross fund return (net return plus expenses) and the prior holdings return. The sample in specifications (5) through (7) is restricted to international equity funds for which we are able to monthly dilution. Dilution is calculated as in Zitzewitz (2006) and is calculated for the subsample of international equity fund*months for which daily flow data was available in the Lipper or TrimTabs datasets used in that paper. All specifications include S&P investment objective-by-month fixed effects and specifications (4) and (7) also include family fixed effects. The sample to Standard errors cluster on fund. Significance at the 10-, 5-, and 1-percent levels is denoted by *, **, and ***.

Table 12. Reported Holdings of Recent IPOs and Type of Fund Management, 1994-2002

Estimation: Report:	Probit Marginal effect	Tobit Coefficients	Probit Marginal effect	OLS Coefficients
Dependent Variable:	1 if Fund Reports Positive Holdings of Recent IPO (1)	Ratio of Value of Reported Holdings of Recent IPOs to Fund TNA (2)	1 if Fund Reports Positive Holdings of Recent IPOs with Net Positive Underpricing (3)	Ratio of Net Underpricing of Recent Reported IPO Holdings to Fund TNA (4)
Anonymous team managed (t-12)	-0.017 ** (0.006)	-8.773 * (4.206)	-0.027 *** (0.008)	-45.659 ** (16.495)
Co-managed (t-12)	-0.011 * (0.004)	-2.873 (2.298)	-0.020 ** (0.006)	-16.574 (13.732)
No Load (t-12)	0.001	2.399	0.002	9.123
Expense Ratio (t-12)	0.007 *	3.623 *	0.012 **	14.242 *
12b-1 Fee (t-12)	0.014	8.104	0.018	83.622 *
Ln Fund TNA (t-1)	0.005 *	-0.213	0.008 **	-3.634
Ln Family TNA (t-1)	0.007 ***	4.109 *	0.011 ***	11.247 **
Turnover (t-12)	0.000	0.008	0.000	0.065
Fund age (t)	0.000	0.117	0.000	0.305
Net flows (t-12 to t-1)	-0.000	0.049	0.000	0.094
Net return (t-12 to t-1)	0.001 ***	0.387 ***	0.001 ***	2.908 ***
Objective*Month Fixed Effects? Clustering	Yes Fund	Yes Fund	Yes Fund	Yes Fund
Sample size	43604	52409	33454	51640

In this table, we use data covering 1994 to 2002 to test whether IPO allocations differ across sole-managed, co-managed, and anonymously team-managed funds. Following Gaspar, Massa, and Matos (2006) and Reuter (2006), we construct proxies for IPO allocations from reported holdings of recent IPOs. We consider four (related) measures of the contribution of IPOs to fund performance. The dependent variable in column (1) is a dummy variable that equals one if fund *i* reported holding shares in any of the IPOs that occurred during the past quarter. We estimate the specifications in columns (1) via probit and report marginal effects. The dependent variable in column (2) is the ratio of the value of fund *i*'s holdings of recent IPOs to the fund's end-of-quarter TNA. Since this variable equals zero much of the time and cannot be negative, we estimate the specification in column (2) via Tobit. The dependent variable in column (3) is a dummy variable that equals one if fund *i*'s reported holdings suggest that it earned positive returns from underpricing during the past quarter. We estimate the specifications in columns (3) via probit

and report marginal effects. Finally, the dependent variable in column (4) is the ratio of the total underpricing that we estimate fund *i* earned over the past quarter based on reported holdings at quarter end to the fund's end-of-quarter TNA. Since this variable can be negative, zero, or positive, we estimate specification (4) via OLS; however, we the top 1% of the positive and negative values. In all four specifications, standard errors are clustered at the fund level. Significance at the 10-, 5-, and 1-percent levels (in two-sided tests) is denoted by *, **, and ***.

Table 13. Determinants of monthly net flows estimated using Fama MacBeth -- interactions with named managed turnover

Sample Period:	1994-2004	
	(1)	(2)
Anonymous team managed (t-12)	0.0005 (0.0010)	-0.0001 (0.0010)
Co-managed (t-12)	-0.0006 (0.0005)	-0.0009 * (0.0005)
Return Rank (t-12 to t-1)	0.0273 *** (0.0011)	0.0066 *** (0.0021)
Return Rank Squared (t-12 to t-1)		0.0101 *** (0.0020)
Return Rank * Anonymous team managed	-0.0045 ** (0.0019)	-0.0032 * (0.0019)
Return Rank * Co-managed	0.0003 (0.0009)	0.0010 (0.0009)
Manager Turnover Dummy (t-12 to t-1)	0.0009 (0.0009)	0.0002 (0.0009)
Return Rank * Manager Turnover Dummy	-0.0068 *** (0.0021)	-0.0059 *** (0.0021)
No Load (t-12)	-0.0003 (0.0003)	-0.0003 (0.0004)
Expense Ratio (t-12)	0.0006 (0.0006)	-0.0006 (0.0006)
12b-1 Fee (t-12)	-0.0012 (0.0009)	0.0002 (0.0008)
Ln Fund TNA (t-1)	-0.0014 *** (0.0001)	-0.0017 *** (0.0002)
Ln Family TNA (t-1)	0.0007 *** (0.0001)	0.0008 *** (0.0001)
Turnover (t-12)	-0.0007 *** (0.0002)	-0.0006 *** (0.0002)
Fund age (t)	0.0000 (0.0000)	0.0000 (0.0000)
Net flows (t-12 to t-1)	0.0319 *** (0.0008)	0.0298 *** (0.0008)
Net return (t-12 to t-1)		0.0460 *** (0.0058)
Net return squared (t-12 to t-1)		0.0487 *** (0.0163)
Number of months	132	132

Note: In this table, we extend table 7 and again estimate the determinants of monthly net flows via Fama MacBeth. Return rank ranges from 0, when fund I has the lowest net return from t-12 to t-1 within its investment objective, to 1, when it has the highest. Manager Turnover Dummy equals 1 if one or more named managers left the fund over the prior 12 months. Significance at the 10-, 5-, and 1-percent levels is denoted by *, **, and ***.

Table 14. Size of the global hedge fund industry, 1994-2004

Year	Assets under management (\$billions)	Share by broad category			
		Debt	Domestic equity	International	Other
		Fixed income arbitrage, convertible arbitrage	Long-short equity, neutral, event-driven, short	Emerging markets, global macro	Managed futures, multi-strategy, funds of funds
1994	58	8%	32%	30%	31%
1995	70	9%	35%	27%	30%
1996	93	10%	36%	27%	27%
1997	138	11%	35%	28%	26%
1998	143	11%	42%	21%	26%
1999	175	10%	52%	14%	25%
2000	157	9%	48%	4%	19%
2001	246	13%	57%	5%	25%
2002	278	15%	51%	6%	28%
2003	390	15%	45%	10%	31%
2004	404	16%	46%	11%	27%

Note: Asset figures are from the TASS database, as reported by category by Getmansky, Lo, and Wei (2004).

Table 15. The Growth of Hedge Funds and the Anonymous Team Management of Mutual Funds

Specification: Sample period:	Levels 1994-2004 (1)	Changes 1994-2004 (2)	Levels 1996-2002 (3)	Changes 1996-2002 (4)	Levels 1996-2002 (5)	Changes 1996-2002 (6)
Ln Hedge Fund AUM in Same Asset Class (t-12)	0.012 *** [0.005]	0.022 ** [0.009]				
Ln Hedge Fund AUM in Same State (t-12)			0.011 *** [0.002]	0.005 *** [0.001]		
Boston HQ					-0.333 ** [0.132]	-0.288 *** [0.135]
Boston HQ * Ln Hedge Fund Industry AUM (t-12)					0.087 ** [0.040]	0.066 *** [0.025]
NYC HQ					-0.308 * [0.164]	-0.267 ** [0.156]
NYC HQ * Ln Hedge Fund Industry AUM (t-12)					0.053 * [0.032]	0.040 ** [0.018]
Anonymous team managed (t-12)		0.848 ***		0.610 ***		0.750 ***
Co-managed (t-12)		0.021 ***		0.010 *		0.009
Fund created in last 12 months (t)		0.195 ***		0.083 ***		0.100 ***
Index Fund (t-12)	0.242 ***	0.089 ***	0.098 ***	0.051 ***	0.027	0.019
No Load (t-12)	-0.002	-0.006	-0.016 **	-0.012 **	-0.008	-0.009
Expense ratio (t-12)	-0.034 ***	-0.036 ***	-0.032 ***	-0.019 ***	-0.052 **	-0.020 **
12b-1 fee (t-12)	0.022	0.033	-0.001	-0.002	-0.008	-0.012
Ln Fund TNA (t-1)	-0.009 ***	-0.006 **	-0.008 ***	-0.004 **	-0.003	-0.002
Ln Family TNA (t-1)	0.003 *	0.005			-0.005	-0.003
Turnover (t-12)	-0.001 ***	0.004 **	0.005 ***	0.004 ***	0.007 **	0.004 ***
Fund age (t)	0.010	-0.000	-0.001 ***	-0.000 **	-0.001 *	-0.001 **
Net flow (t-12 to t-1)	-0.066 ***	0.008	0.011 **	0.005	0.009	0.002
Net return (t-12 to t-1)	-0.059 ***	-0.046 **	-0.074 ***	-0.065 ***	-0.061 ***	-0.044 **
Fixed effects	Family*Year, Objective	Family*Year, Objective	Obj*Year, Family	Obj*Year, Family	Obj*Year	Obj*Year
Clustering	--	--	--	--	Family	Family
Pseudo R2	0.2442	0.5898	0.3403	0.5634	0.0717	0.5086
Sample size	13927	13927	13811	13811	18720	18720

Note: This table adds several variables to the specifications previously estimated in Table 8, with the goal of testing whether the use of anonymous team management is correlated with growth in the hedge fund industry. The first hedge fund-related variable is the natural logarithm of hedge fund assets in the same broad asset class (i.e., debt, domestic equity, or international equity) as fund *i*. The second hedge fund-related variable is the natural logarithm of hedge fund assets managed by firms in the same state as fund *i*. The third set of hedge fund variables are dummy variables indicating whether fund *i* is located in Boston or NYC plus interactions with the log of total hedge fund industry assets. Standard errors are robust to heteroscedasticity; standard errors in the last two columns also cluster on family. Significance at the 10-, 5-, and 1-percent levels (in two-sided tests) is denoted by *, **, and ***.