

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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The management of a typical mutual fund 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 (co-managers) 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 study mutual fund firms’ decisions about whether to publicly identify the people involved in managing their funds by studying the tradeoffs involved in sharing credit with employees. An *ex ante* decision about whether to share credit for a fund’s returns with its manager is essentially a decision about who will own the fund’s track record, a valuable asset in the world of fund management. 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—then sharing credit with employees may have marketing consequences as well.

Indeed, in our setting, the primary tradeoff in naming managers is between rent sharing costs and marketing benefits. We find that named-manager funds receive more positive media mentions and greater inflows, particularly into no-load funds, than do anonymous team-managed funds. Moreover, we find that the biggest differences are between sole-managed funds and anonymous team-managed funds. One of the most powerful media mentions in terms of generating investor

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 “anonymous 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.

flows is an article that profiles a particular fund manager, such as the “Investing With” column that ran in the Sunday *New York Times* during most of our sample period.³ Perhaps not surprisingly, articles of this type prefer named-manager funds to anonymous team-managed funds, and sole-managed funds to co-managed funds. Offsetting these marketing benefits are the rent sharing costs of naming managers, which arise from the fact that successful named managers should enjoy increased bargaining power with their firms. Lacking manager wage data, we study investor flows around manager departures and find that named-manager funds experience a significant inflow penalty when managers depart following periods of good performance. We view this inflow penalty as strong indirect evidence that the share of rents accruing to named managers increases when they outperform their peers.

The prospect of greater rent sharing should, in turn, create strong incentives for named managers to outperform. When we compare sole-managed funds to anonymously team-managed funds, we find that sole-managed funds earn risk-adjusted annualized returns that are 44 to 55 basis points higher, despite having expense ratios that are 16 basis points higher and turnover that is 14 percent lower. To better understand the source of these return differences, we follow Grinblatt and Titman (1993) and Kacperczyk, Siam, and Zheng (2006) (hereafter, KSZ) and decompose pre-expense returns into the returns on the most recently disclosed portfolio holdings and the difference between these holding returns and the actual returns of the fund, which KSZ refer to as the return gap. This decomposition reveals that the better performance of named managers is not due to better stock selection, but rather to anonymous team-managed funds experiencing larger return gaps. As KSZ argue, a fund’s return gap sheds light on the unobserved actions of its management team and family. For example, they find that positive return gaps reflect more favorable IPO allocations. We

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.

find that the lower return gaps of anonymous team-managed funds reflect both less favoritism in the allocation of underpriced IPOs and a greater tolerance for dilution from fund arbitrage trading. In addition, we find that the differences in return gaps and dilution between named-manager and anonymous team-managed funds are stronger within mutual fund families than between them, which suggests that managers are more likely to prevent return diversion and seek favorable treatment within their firms when their names are publicly associated with the funds' performance.

If the decision to use named managers or anonymous teams reflects tradeoffs between marketing, rent sharing, and incentives, then the dramatic increase in anonymous team management must reflect changes in these tradeoffs through time. Indeed, we believe that two developments in the last decade help to explain the rise of anonymous teams. First, the media's preference for mentioning named-manager funds declined sharply after 2000, reducing one of the marketing benefits of naming managers. For example, the share of articles in two major personal finance magazines that focus on a single manager or firm declined from 26 percent in 1998 through 2000 to 10 percent in 2001 and 2002, a decline that was probably reinforced by the mutual fund scandals of 2003.

Second, the more than ten-fold growth in the hedge fund industry increased the outside opportunities for managers—especially those publicly associated with successful mutual funds—thereby increasing their ability to extract rents.⁴ We find that the shift to anonymous team management is most pronounced in asset classes, cities, and states most affected by the hedge fund boom. For example, the collapse of Long Term Capital Management, a global macro hedge fund, in 1998 contributed to the sharp decline of internationally-oriented hedge assets from 28 percent of total hedge fund assets in 1997 to 4 percent in 2000. Consistent with this decline differentially reducing the outside opportunities of named international fund managers, the shift to anonymity in that

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.

category slowed substantially. Likewise, the New York City area accounts for about 60 percent of the U.S. hedge fund industry, and we find that the shift to anonymous teams was significantly faster for families headquartered in and around New York City.

In addition to the trend toward anonymity there has also been a trend toward naming more than one manager. The increase in co-managed funds occurs earlier; their share increases most rapidly from 1993 to 1998, whereas anonymous team management increases most rapidly from 1997 to 2003. In many respects, however, co-management might be viewed as an intermediate step between naming a single manager and keeping the management team anonymous.⁵ We find some support for this view in our analysis. For example, we find that the media appears to weakly prefer mentioning sole-managed funds to co-managed funds, but strongly prefers mentioning both types of named-manager funds to team-managed funds. Nevertheless, in the majority of our tests, we find the largest differences between anonymously managed funds and those with any number of named managers. These findings are consistent with the comments of industry participants, who emphasize that a fund’s self-reported management structure is primarily a marketing choice.⁶

Our study relates to several literatures, including the recent literature on team-managed mutual funds. Prather 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—a category that lumps anonymous team-managed funds together with co-managed funds—and find that multi-manager funds underperform by 0 to 4 basis points per month. In contrast, we separately analyze the returns of sole-managed, co-managed, and anonymous team-managed funds and find that the underperformance is limited to anonymous team-managed funds. More

⁵There does not appear to be an alphabetic norm in ordering co-managers of funds. The probability of the first two named managers being in alphabetical order is 54 percent in Morningstar and 50 percent in CRSP.

⁶For 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.

significantly, whereas these studies view differences across different management types as being informative about the costs and benefits of team production, we view reports of “team management” as being more informative about managerial anonymity. Baer, Kempf, and Ruenzi (2005) compare the performance and investment styles of anonymous team-managed and sole-managed funds and find that team-managed funds underperform by between 5.6 and 6.0 basis points per month; they also find that team-managed funds exhibit less idiosyncratic risk. While our analysis of fund returns complements theirs, our primary focus is on the tradeoffs involved in naming managers and how these tradeoffs changed over the past decade. Our findings that return gaps, dilution from fund arbitrage, and IPO allocations differ across named-manager and anonymous team-managed funds contribute to the growing literature on agency and shareholder asset diversion in fund management (see, for example, Zitzewitz (2003) and Gaspar, Massa, and Matos (2006)).

More generally, our paper relates to theoretical and empirical work on career concerns (see, for example, Holmström, 1999, and Chevalier and Ellison, 1999). Since the decision to report “team management” is a decision about who owns the track record of the fund, it also relates 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 as to create appropriate incentives for non-contractible effort. Empirical work on other industries suggests that these theories have significant explanatory power.⁷ In our context, these theories predict named management when managerial effort is central to a fund’s success and anonymous team management when limiting the rents appropriated by successful managers is more important.

To this standard tradeoff between incentives and rent sharing, we add the marketing benefits

⁷For 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.

of named managers, which we find to be substantial. Past research has found that investors 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 determine which funds are 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.

Finally, our paper relates to the literature on the economics of superstars (Rosen, 1981). Malamendier and Tate (2005) find that CEOs who win media awards and become "superstars" earn higher compensation, but that their firms subsequently underperform. In contrast, we find that named-manager funds earn higher 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 while CEOs have discretion about whether to promote themselves as stars, a fund manager's access to stardom can be regulated by her employer.

The remainder of the paper is organized as follows. In Section I, we describe the mutual fund and hedge fund data used in our analysis. In Section II, we study the marketing benefits, incentive benefits and rent sharing costs of naming managers: II.A. presents evidence that media mentions and investor flows favor named manager funds; II.B. explores return differences between named-manager and anonymous team-managed funds; II.C. presents evidence that the bargaining power of named managers increases following periods of good relative performance; II.D. links the rise of anonymous team management to the concurrent hedge fund boom. In Section III, we discuss the implications of a recent Securities and Exchange Commission rule requiring mutual funds to

disclose the identities of their fund managers and offer concluding remarks.

I. 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 panel of Morningstar Principia CDs that cover 1993 to 2004 and merge the CRSP and Morningstar data using fund tickers. For the funds we 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

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.

named managers in Morningstar were reported as “team managed” by CRSP. Adjusting for this difference, the databases agree on whether funds were sole-managed, co-managed, 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.

II. 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 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.

A. 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

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).

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 (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 are clustered on mutual fund family.

The estimated marginal effects on the anonymous team-managed 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

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.

the team-managed and co-managed dummy variables with coefficients on the control variables suggests that these differences are economically significant. For instance, a causal interpretation of the coefficients 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 25 percentage points lower.

In Panel A of Table 4, we present the results of probit 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 Panel A, 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 managed by an anonymous team, 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 on the team-managed dummy variable are small and statistically significant when predicting Morningstar ratings suggests that omitted variables are not a serious concern.

In Panel B of Table 4, we examine how the media’s preference for named-manager funds evolves between 1997 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 articles focused on a single fund or family (Table 5). 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 6, 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, between 1994 and 2004, we find that team-managed funds have monthly inflows that are 19 basis points lower than otherwise identical funds with named managers. However, when we follow Bergstresser, Chalmers, and Tufano (2006) and estimate separate specifications for no-load and load funds, we find that the lower inflows into team-managed funds are concentrated in the set of no-load funds. When we control for media mentions in our five publications, we find that the 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 some of the lower demand for team-managed no-load funds.

¹²Consistent with investor demand for mutual fund information changing between bull and bear markets, Mulinathan 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.

It is important to keep in mind that the regressions in Tables 3, 4, and 6 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 7 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 and 4 suggest that these funds are 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 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-

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.

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 8 reestimates the regressions in Tables 3 and 6 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 mention 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

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.

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.

B. Named Managers and Fund Performance

In this section, we ask whether named-manager funds earn higher returns than their anonymous team-managed peers. In specification (1) of Table 9, we begin with 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 the control variables from earlier tables. The sample covers 1994 to 2004 and is restricted to actively-managed, non-specialty domestic equity funds with 24 or more months of past returns.¹⁶ Standard errors are clustered on fund.

The coefficient on the anonymous team-managed dummy in specification (1) is -1.1 basis points per month, but not statistically different from the omitted category of sole-managed funds. In specifications (2) and (3), we replace fund i 's net return with one and four-factor alphas, which are estimated as in Carhart (1997). We find that sole-managed funds earn risk-adjusted returns 4.6 and 3.7 basis points per month higher, respectively, than anonymously team-managed funds, and that the differences are statistically significant (with p-values of 0.066 and 0.040 in two-sided tests). In contrast, the coefficients on the co-managed dummy variable are 0.7, -0.5 , and -1.2 basis points, in specifications (1), (2), and (3), and are not statistically significant from sole-managed funds. Moreover, in the case of specification (2), we can reject the hypothesis that the coefficients on

¹⁶We classify Potomac, ProFunds, and Rydex funds as specialized domestic equity funds and exclude them from the analysis in Tables 9 and 10. These funds have exceptionally high turnover (approximately 20 times the average fund in our sample) and, beginning in 1999, 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 (specification (5) of Table 9) from negative to positive but does not otherwise alter our results.

the team-managed and co-managed dummies are equal at the 10-percent level (p-value of 0.088).¹⁷ In other words, once we control for differences in portfolio risk, we find evidence that anonymous team-managed funds underperform sole-managed funds by an economically significant margin.^{18,19}

What explains the lower returns of team-managed funds? Since we estimate risk-adjusted returns from after-expense returns, one possible explanation is that team-managed funds charge significantly higher expense ratios than named-manager funds. However, when we analyze annual expense ratios in specification (4), we find that the expense ratios of team-managed funds are actually 16 basis points lower than those of sole-managed funds, and that the difference is statistically significant at the 1-percent level.

To shed more light on 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

¹⁷Prather and Middleton (2002), Chen, Hong, Huang, and Kubik (2004), and Bliss, Potter, and Schwarz (2006) study the performance of sole-managed funds relative to multi-manager funds, a category which lumps co-managed funds together with anonymously team-managed funds. Using samples that differ in terms of time periods, types of funds studied, and whether they use manager name variables from CRSP or Morningstar, these papers find that multi-manager funds underperform sole-managed funds by between 0 and 4 basis points per month. When we replace our team-managed and co-managed dummies with a multi-manager dummy, and re-estimate specifications (1), (2), and (3), the coefficients on the multi-manager dummy are 0.2 (p-value of 0.873), -1.6 (p-value of 0.306), and -1.9 (p-value of 0.182) basis points per month.

¹⁸Baer, Kempf, and Ruenzi (2005) also find that anonymous team-managed funds underperform sole-managed funds. Their estimates, based on the contemporaneous CRSP manager name variable, range from 5.0 basis points per month, in a univariate comparison of net returns, to 5.6 basis points per month, in a multivariate analysis of four-factor alphas.

¹⁹Chen, Hong, and Kubik (2006) find that funds that outsource stock picking to non-affiliated subadvisers underperform their peers. To the extent that Morningstar is more likely to list subadvised funds as being team managed, any finding that team-managed funds underperform named-manager funds may be driven by the underperformance of subadvised funds. Using data from Del Guercio, Reuter, and Tkac (2006) on non-affiliated subadviser relationships in effect in either 1996 or 2002, we find that subadvised domestic equity 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 specifications (1), (2), and (3) of Table 9 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 for the full sample.

return for a fund's non-stock holdings.²⁰ In specifications (6) through (8) of Table 9, 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 exhibit 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-managed funds, we find that it is, in fact, significantly lower (specification (5)). In addition, when we study the number of stocks that funds report holding at fiscal year ends (specification (10)), we find that team-managed funds hold less concentrated portfolios, which also suggests less active management. Less active management of team funds is consistent with Almazan et. al. (2004), who find that multi-manager funds (team and co-managed funds taken together) face more investment restrictions. The lower returns we find for team managed funds therefore do not appear to be the result of higher transaction costs arising from active management.²¹

If team-managed funds trade less than named-manager funds, what explains the negative return

²⁰When 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.

²¹Whether we should expect active management to be positively or negatively correlated with returns is controversial. Carhart (1997) finds that a proxy for portfolio transaction costs is negatively correlated with returns, and Pollet and Wilson (2006) find that holding concentrated portfolios is also negatively correlated with returns. In contrast Cremers and Petajisto (2006) use a different measure and find that portfolio concentration is correlated with positive returns.

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 holding shares of recent IPOs 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. Adding family fixed effects to the return gap regression (specification (9) of Table 9) 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 hypothesis that named-manager funds enjoy more favoritism, permit less return diversion, or both.

To test the hypothesis that named managers permit less return diversion in their funds, 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) impact of fund arbitrage on returns 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 specifications (2) and (3) of Table 10, 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 difference is not statistically significant. Adding the 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 second test of 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 10, we conduct our tests for favoritism toward named-manager funds. Following 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 noisy proxies for actual allocations, in specification (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 specification (1) via probit and report marginal effects; standard errors are clustered 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 specification (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 specification (2) via Tobit. (The coefficients we report are multiplied 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.

Finding 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 specification (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 specification (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 specification (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 specification (4) via OLS. (Again, the coefficients we report are multiplied 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 demonstrate that team-managed funds earn 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.

C. Bargaining Power and the Cost 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 changes in the inflow-performance relationship when named managers depart. In Table 11, we extend our analysis of monthly net flows in Table 6. In specification (1), we include the fund's within-objective performance ranking over the prior 12 months and a dummy variable indicating whether any named managers departed during the prior 12 months. (By definition, the departure of an unnamed team member is not observable to shareholders or researchers.) We then interact the within-objective return ranking with the anonymous team-managed dummy variable, the co-managed dummy variable, and the named manager turnover dummy. In specification (2), we also control for the fund's past returns, past returns squared, and the within-objective rank squared.

The negative and statistically significant coefficients on the interaction between within-objective

return ranking and named manager turnover 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.²²

D. Hedge Funds and the Rise of Anonymous Team-Manged Mutual Funds

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.²³ In Table 13, we extend the specifications from Table 7 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 asset classes has varied at different times (Table 12). 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

²²Within 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 11 that investors expect good performance to be less persistent when a named manager departs.

²³In 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).

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 13, 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 7, 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.²⁴ Hand-collected data on mutual fund family 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 specifications (3) through (4) of Table 13, we test whether mutual funds in states with large

²⁴Hedge 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, 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.

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, specifications (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; standard errors are clustered 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 specification (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 13 suggest that the move towards anonymous team management was strongest in those asset classes and cities with the most hedge fund assets.

III. 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.²⁵ 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 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.

²⁵ "Disclosure Regarding Portfolio Managers of Registered Investment Companies," Security and Exchange Commission Release 33-8458.

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)		
Objective*month fixed effects?	Yes	Yes	Yes	Yes	Yes	Yes
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 are clustered 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 and year, 1997-2002

Panel A. Mentions by Article Type						
	Mentions in Kiplinger's and SmartMoney, by Article Type				Morningstar ratings	
	<i>Single Family/Fund</i>	<i>Investment Theme</i>	<i>General Recommendations</i>	<i>Negative</i>	<i>1 Star</i>	<i>5 Stars</i>
	(1)	(2)	(3)	(4)	(5)	(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)
Objective*month fixed effects?	Yes	Yes	Yes	Yes	Yes	Yes
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

Panel B. Positive Mentions by Year						
	Positive media mentions in NYT, Money, Kiplinger's, SmartMoney, or Consumer Reports					
	1997	1998	1999	2000	2001	2002
	(7)	(8)	(9)	(10)	(11)	(12)
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)
Objective*month fixed effects?	Yes	Yes	Yes	Yes	Yes	Yes
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: This table analyzes media mentions by type of mention (Panel A) and by year (Panel B). Each column reports marginal effects from a probit regression that includes the same set of independent variables as column (6) of Table 3. The first three columns of Panel A predict positive mentions in either 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; and columns (5) and (6) predict Morningstar ratings of one and five stars, respectively. Each column in Panel B predicts positive media mentions in The New York Times' "Investing With" column, Money Magazine's Money 100 list, Kiplinger's, SmartMoney, or Consumer Reports each month for a single calendar year between 1997 and 2002. 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 5. 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 6. 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 using the approach developed in Fama MacBeth (1973). 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 fund-month 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 7. 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 clustered on family. In specifications that 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 8. 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 9. Anonymous Team Management, Fund Returns, and Fund Characteristics, 1994-2004

Panel A. Analysis of Fund Returns, Expenses, and Turnover						
Dependent Variable:	Net Return	CAPM Alpha	Carhart Alpha	Expense Ratio	Turnover	
Sample Frequency:	monthly	monthly	monthly	annual	annual	
Sample Period:	1994-2004	1994-2004	1994-2004	1994-2004	1994-2004	
	(1)	(2)	(3)	(4)	(5)	
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)	
Co-managed (t-12)	0.007 (0.016)	-0.005 (0.017)	-0.012 (0.015)	-0.018 (0.026)	-7.873 ** (3.399)	
No Load (t-12)	0.023	0.030	0.018	-0.348 ***	10.690 ***	
Expense ratio (t-12)	-0.040 **	-0.083 ***	0.013		9.201	
12b-1 fee (t-12)	-0.023	-0.037	0.037		2.303	
Ln Fund TNA (t-1)	-0.049 ***	-0.031 ***	0.006 ***	-0.114 ***	-7.364 ***	
Ln Family TNA (t-1)	0.025 ***	0.012 **	0.004	-0.075 ***	3.646 ***	
Turnover (t-12)	-0.000 ***	-0.000 ***	0.000	0.001 ***		
Fund age (t)	0.000	-0.001	0.001	0.005 **	0.039	
Net flow (t-12 to t-1)	-0.002 ***	-0.001 ***	0.000 ***	0.001 ***	-0.047 *	
Net return (t-12 to t-1)	0.027 ***	0.015 ***	0.001 ***	-0.009 ***	-0.386 ***	
Objective*Month Fixed Effects?	Yes	Yes	Yes	--	--	
Objective*Year Fixed Effects?	--	--	--	Yes	Yes	
Clustering	Fund	Fund	Fund	Fund	Fund	
Sample size	142031	142031	142031	11613	11613	
Panel B. Analysis of Fund Holdings						
Dependent Variable:	Net Return	Prior holdings	Return Gap	Return Gap	# Stocks	
Sample Frequency:	monthly	monthly	monthly	monthly	annual	
Sample Period:	1994-2002	1994-2002	1994-2002	1994-2002	1994-2002	
	(6)	(7)	(8)	(9)	(10)	
Anonymous team managed (t-12)	0.000 (0.027)	0.035 (0.029)	-0.033 * (0.020)	-0.048 ** (0.024)	41.689 *** (13.771)	
Co-managed (t-12)	0.005 (0.021)	0.004 (0.022)	0.000 (0.013)	-0.002 (0.015)	7.601 (5.544)	
Control variables from Panel A?	Yes	Yes	Yes	Yes	Yes	
Objective*Month Fixed Effects?	Yes	Yes	Yes	Yes	--	
Objective*Year Fixed Effects?	--	--	--	--	Yes	
Family Fixed Effects?	--	--	--	Yes	--	
Clustering	Fund	Fund	Fund	Fund	Fund	
Sample size	96008	96008	96008	96008	9065	

Note: This table estimates pooled regressions. We restrict the sample to actively managed, non-specialty domestic equity funds for which we can estimate risk-adjusted returns. In addition, we exclude funds by Potomac, ProFunds, and Rydex. Panel A focuses on fund returns and fund characteristics from CRSP. Panel B focuses on performance measures and characteristics that require matched portfolio holdings. Since we only possess matched portfolio holding through 2002, the analysis in Panel B excludes 2003 and 2004. For the return measures, the unit of observation is fund *i* in month *t*. Returns are measured as continuously compounded percentage points per month. 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. 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. The number of stocks is the number of US stocks disclosed in the fund's most recent N-30D filing. All independent variables except fund age are lagged. Specifications based on monthly returns include S&P investment objective-by-month fixed effects; specifications (4), (5), and (10) include year-by-month fixed effects. Specification (4) also includes family fixed effects. Standard errors are clustered on fund. Significance at the 10-, 5-, and 1-percent levels is denoted by *, **, and ***.

Table 10. Anonymous Team Management, Dilution Due to Stale Price Arbitrage and Late Trading, and IPO Allocations

Sample: Dependent Variable:	International Equity, 1998-2003			Non-Specialized Domestic Equity, 1994-2002			
	Returns	Dilution	Dilution	Any IPOs Dummy?	IPOs as Fraction of TNA	Hot IPOs Dummy?	Underpricing as Fraction of TNA
Sample Frequency:	monthly	monthly	monthly	quarterly	quarterly	quarterly	quarterly
Estimation:	OLS	OLS	OLS	Probit	Tobit	Probit	OLS
Report:	coefficients (1)	coefficients (2)	coefficients (3)	marginal effects (4)	coefficients (5)	marginal effects (6)	coefficients (7)
Anonymous team managed (t-12)	-0.053 (0.108)	-0.030 (0.024)	-0.099 ** (0.042)	-0.017 ** (0.006)	-8.773 * (4.206)	-0.027 *** (0.008)	-45.659 ** (16.495)
Co-managed (t-12)	-0.136 (0.085)	-0.014 (0.016)	-0.045 (0.040)	-0.011 * (0.004)	-2.873 (2.298)	-0.020 ** (0.006)	-16.574 (13.732)
Control variables from Table 9?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Objective*Month Fixed Effects?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Family Fixed Effects?	--	--	Yes	--	--	--	--
Clustering	Fund	Fund	Fund	Fund	Fund	Fund	Fund
Sample size	6448	6448	6448	43604	52409	33454	51640

Note: This table explores two potential explanations for the lower return gaps of anonymous team-managed funds. In the first three specifications, we focus on dilution due to stale price arbitrage and late trading in international equity funds. Within the small sample of international equity fund-months for which Lipper and TrimTabs daily flow data are available, dilution is calculated as in Zitzewitz (2006). Estimation is via OLS, includes S&P investment objective-by-month fixed effects, and the full set of control variables from Table 9; specification (3) includes mutual fund family fixed effects as well. In the remaining four specifications, we focus on IPO allocations to anonymously team-managed funds. Our sample is restricted to non-specialty domestic equity funds between 1994 and 2002. Following 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 (4) 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 (4) via probit and report marginal effects. The dependent variable in column (5) 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 (5) via Tobit. The dependent variable in column (6) 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 (6) via probit and report marginal effects. Finally, the dependent variable in column (7) 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 (7) via OLS; however, we trim the top 1% of the positive and negative values. Standard errors are clustered on fund. Significance at the 10-, 5-, and 1-percent levels is denoted by *, **, and ***.

Table 11. 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 12. 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, market-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 totals by investment category are from the TASS database, as reported by Getmansky, Lo, and Wei (2004).

Table 13. 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 TNA in Same Asset Class (t-12)	0.012 *** [0.005]	0.022 ** [0.009]				
Ln Hedge Fund TNA 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 TNA (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 TNA (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 7, 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 are also clustered on family. Significance at the 10-, 5-, and 1-percent levels (in two-sided tests) is denoted by *, **, and ***.