When should firms share credit with employees?
Evidence from anonymously managed mutual funds[*]

MASSIMO MASSA
INSEAD

JONATHAN REUTER
Boston College

ERIC ZITZEWITZ
Dartmouth College

April 2009

ABSTRACT

Between 1993 and 2004, the share of mutual funds disclosing manager names to their investors fell significantly. We argue that the choice between named and anonymous management reflects a tradeoff between the marketing benefits of naming managers and the costs associated with their increased future bargaining power. Consistent with this tradeoff, we find that funds with named managers receive more positive media mentions, have greater inflows, and suffer less return diversion due to within family cross-subsidization, but that departures of named managers reduce inflows, especially for funds with better past performance. To the extent that the hedge fund boom differentially increased outside opportunities for successful named managers, we predict that it should have increased the costs associated with naming managers and led to more anonymous management. Indeed, we find that the shift towards anonymous management is greater in those asset classes and geographical areas with more hedge fund activity.

1. Introduction

Mutual fund 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. In 1993, over 70% of U.S. mutual funds named a single fund manager. Over the next decade, however, funds increasingly chose to disclose either multiple manager names (co-managers) or that the fund was "team managed" without naming any specific managers (anonymous managers). The incidence of anonymous management increases from 4% of the sample in 1993 to 18% in 2004; among newly started funds the increase is from 3% to 30% (Table 1). In this paper, we use the trend towards anonymous management to shed light on the costs that mutual fund firms incur and the benefits that they receive from marketing their managers.

We argue that the choice between named and anonymous management is a strategic decision about publicly sharing credit for project outcomes with managers. The decision whether to disclose manager names and share credit is an *ex ante* decision about the ownership of a track record, a valuable asset. There are two potential benefits to naming managers. First, if the fund manager "owns" (can credibly claim credit for) her track record, it can increase her incentive to perform well, increasing manager-firm joint surplus (Holmström, 1999). Second, as we show, crediting a manager can have marketing benefits. Just as consumers prefer brands with personalities (Aaker, 1997), the media and investors prefer investments with plausible stories for why they should outperform (Barber, Heath, and Odean, 2003; Mullainathan, Schwartzstein, and Shleifer, 2008), and a named manager potentially provides both. Regardless of whether these preferences are a result of limited attention (Sirri and Tufano, 1998; Hortascu and Syverson, 2004) or the anticipation of higher quality for rational (or behavioral) reasons, if investors prefer named managers, naming them can increase joint surplus.

The potential cost to firms from naming managers arises from the increased bargaining power of successful named managers. In the canonical agency model (Holmström, 1979), a firm chooses a pay-for-performance scheme that balances the benefits of providing incentives with the cost of inefficiently sharing risk between a risk-adverse manager and a risk-neutral firm. In our setting, sharing credit provides incentives for success by increasing the reputation of the manager. However, while sharing credit increases the bargaining power of successful named managers—allowing them to extract more rent from the firm—it also exposes managers to greater risk. When success has a significant luck component, the incentives provided by credit sharing can be stronger than those that would be chosen in an optimal incentive-pay contract for an unnamed manager. The resulting inefficiency in risk sharing cannot be eliminated through contracting unless a manager can credibly promise to work for a below-market wage when successful. If the incentives provided by credit sharing already yield more pay-for-performance than optimal, firms (and managers) could respond to an increase in outside labor market

1

competition for successful named managers by choosing to share less credit with managers. In our setting, this would correspond to mutual fund firms responding to the boom in demand for successful managers from hedge funds by switching to anonymous mutual fund management.

We argue that disclosing manager names involves a tradeoff between marketing benefits, on the one hand, and costs associated with managerial rent extraction and inefficient risk sharing, on the other. We study this tradeoff by comparing outcomes for funds that name a sole manager, funds that name multiple (co-)managers, and funds that keep their managers anonymous. We start by documenting differences in fund media coverage and demand consistent with named managers providing marketing benefits for management companies. Funds with one named manager receive significantly more media mentions than comparable anonymously managed or co-managed funds. For example, the *New York Times* "Investing With" column, which profiled a different mutual fund each Sunday, is most likely to feature sole-managed funds, and more likely to feature co-managed funds than anonymously managed funds. As one would expect given the existing evidence that media mentions impact fund flows (Sirri and Tufano, 1998; Reuter and Zitzewitz, 2006; Kaniel, Starks, and Vasudevan, 2007), named-manager funds receive annualized net flows that are approximately 2% of assets higher than received by anonymously managed funds. The effect is largely driven by funds marketed and sold directly to investors (no-load funds), where funds with a single named manager receive an additional 3% to 4% of assets per year, depending on whether we control for the extra media mentions received.[1]

We also find modest differences in fund returns. Within our sample, the returns of sole-managed and anonymously managed funds differ by less than 4 basis points per month—whether measured as net returns, one-factor alphas, or four factor alphas—and none of the differences are statistically significant at conventional levels. Nevertheless, fund returns are sufficiently noisy that we cannot rule out the existence of economically meaningful differences. To reduce the impact of this noise, we follow Grinblatt and Titman (1993) and Kacperczyk, Sialm, and Zheng (2008, hereafter KSZ) and decompose funds' pre-expense returns into the future returns of their most recently disclosed equity holdings and the remainder, which KSZ term the "return gap." We find that sole-manager funds have return gaps that are approximately 4 basis points per month more positive than anonymously managed funds.

While positive return gaps are consistent with systematic differences in short-term trading profitability due to managerial ability or effort, they are also consistent with families strategically allocating more resources to their named-manager funds. Indeed, additional tests in the spirit of Gaspar,

---

[1] While fund companies may choose whether to name managers in combination with other choices, such as whether to promote a fund to reporters, in Table 2, we find that a significant fraction of the annual variation in anonymity is at the level of the mutual fund family. Unreported regressions show that when we use the fraction of a family's funds that were anonymously managed in month t-12 to instrument for anonymous management in month t, OLS and IV estimates of the impact of anonymous management on media mentions and net flows into no-load funds are quite similar. In these cases, Hausman tests do not allow us to reject the hypothesis of exogeneity.

Massa and Matos (2006) suggest that named-manager funds benefit from cross-subsidization. In particular, return gap differences exist primarily *within* families. Furthermore, sole-managed domestic equity funds receive more favorable allocations of underpriced initial public offerings and, within fund families, sole-managed international equity funds experienced less dilution from market timing or late trading. Taken together, our evidence suggests that the higher return-gap performance of named managers is partly due to strategic cross-subsidization by mutual fund firms for marketing purposes. Interestingly, the differences in net flows are much larger than we would expected given return differences of just 4 basis points per month, suggesting that the majority of the additional flows into named-manager funds reflect *perceived* quality differences that are only partly borne out by differences in fund returns.

Offsetting the benefits of naming managers are the costs that arise from sharing credit for fund outcomes. Lacking manager wage data, we provide two alternative sets of tests of whether naming managers increases their bargaining power when successful. First, we document that net flows into successful funds are lower following the departure of one or more named manager. Second, we test whether increases in labor market competition for successful managers are accompanied by accelerated shifts toward anonymity. Here, we exploit the seven-fold increase in the size of the hedge fund industry between 1994 and 2004, which created lucrative outside employment opportunities for successful fund managers, but did so unevenly and asynchronously across asset classes and geographic labor markets.

While the hedge fund boom coincided with the shift to anonymous management, the two time-series trends need not be related. To address this concern, we adopt a difference-in-difference approach, asking whether the shift to anonymity was especially pronounced at times when hedge fund asset growth was especially strong in that asset class or geographical labor market. We find that it was, which is consistent with the idea that competition from hedge funds increased named managers' outside options most within the same asset class or geography. For example, the collapse in 1998 of Long Term Capital Management, a global macro hedge fund, contributed to the sharp decline of internationally-oriented hedge fund assets from 28% of total hedge fund assets in 1997 to 4% in 2000. Consistent with this decline differentially reducing the outside opportunities of named international fund managers, we find the shift to anonymity slowed substantially more for international mutual funds. Our estimates imply that the growth in the hedge fund industry between 1994 and 2004 accounted for 10% to 40% of the shift to anonymous mutual fund management.

Our paper contributes to both the mutual fund literature and a broader literature on employee contracting and career concerns. We make three contributions to the mutual fund literature. First, we provide new evidence on mutual fund product differentiation and (indirectly) on the question of how high fees can coexist with many competitors. When investors face significant search costs and choose to

consider only a subset of funds (Hortascu and Syverson 2004), a named manager can provide a "story" that helps distinguish the fund from its peers. Cooper, Gulen, and Rau (2005) provide related evidence that flows respond disproportionately to mutual fund name changes, while Jain and Wu (2000) and Gallaher, Kaniel, and Starks (2007) provide evidence that advertising directly influences fund flows. The increased product differentiation resulting from naming managers has the potential to increase product demand and soften price competition. Indeed, the sole-managed funds in our sample receive more media attention and higher flows, despite charging significantly higher fees.

Second, we contribute to the literature on the strategic behavior of mutual fund families (Nanda, Wang, and Zheng, 2004; Guedj and Papastaikoudi, 2005; Gaspar, Massa, and Matos, 2006). The fact that flows into sole-manager funds are the most sensitive to returns gives firms an incentive to favor these funds, even at the expense of their other funds. Collectively, this literature demonstrates that families play significant roles in the performance of their funds. Our evidence that sole-managed funds have significantly higher return gaps, greater holdings of underpriced IPOs, and less return dilution from stale price arbitrage are consistent with favoritism by families along a previously unexplored dimension. Moreover, to the extent that named-managed funds have more bargaining power within their families than anonymously managed funds, our results help to explain why some funds might tolerate cross-subsidization of other funds within their family.

Third, our study challenges the common (implicit) assumption that manager name disclosures are informative about the return generating process, rather than strategic disclosures. Examples include studies of whether certain named managers are more skilled (Chevalier and Ellison, 1999a), as well as a number of recent papers examining the "team production" of returns (Prather and Middleton, 2002; Baer, Kempf, and Ruenzi, 2005; Bliss, Potter and Schwarz, 2008). These latter papers compare the returns of sole-managed and multi-manager funds, find, as we do, that the former are slightly higher, and conclude that team production leads to inferior results. While it would be excessively cynical to view manager name disclosures as uninformative about the management process, as one fund firm founder told us: "fund management always involves multiple people" and disclosure of manager names "are primarily about what you tell the world."[2] In treating mutual fund disclosures as strategic, we follow work on window dressing (Lakonishok, Shleifer, Thaler, and Vishny, 1991) and on portfolio disclosure as a signal of quality (Ge and Zheng, 2006).

More generally, we contribute to the career concerns and optimal contracting literature by highlighting that the decision to share credit with employees is an important dimension along which

---

[2] We conducted a number of open-ended interviews with fund managers, in which we asked them to explain the trend in anonymous management. We quote from these interviews occasionally to help to illustrate a point. While our interviewees' comments were generally consistent with one another, we recognize that their views need not be representative of the industry.

firms and employees can contract. This literature includes theoretical and empirical work on asset ownership and hold-up (Williamson, 1979; Grossman and Hart, 1986; Hart and Moore, 1990; Monteverde and Teece, 1982; Joskow, 1985), asset ownership and incentives (Holmström and Milgrom, 1991; Baker and Hubbard, 2003; Simester and Wernerfeldt, 2005) and career concerns (Holmström, 1999; Chevalier and Ellison, 1999b). We extend this literature by considering the marketing effects of credit sharing, which are potentially important in other contexts.

Finally, our paper relates to the literature on the economics of superstars (Rosen, 1981; Terviö, 2008). Malmendier and Tate (2009) 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 (weakly) higher returns for their investors and attract more inflows for their firms but are, nonetheless, becoming less common over our sample period. An important difference between CEOs and fund managers is that CEOs arguably have more discretion about whether to promote themselves as stars, and thus CEO stardom could be less an outcome of optimal contracting than a symptom of suboptimal contracting.

The remainder of the paper is organized as follows. In Section 2 we detail the mutual fund and hedge fund data used in our analysis. In Section 3, we discuss the empirical determinants of co-management and anonymous management. In Section 4, we lay out our empirical results: 4.1 presents evidence that media mentions and investor flows favor named manager funds; 4.2 explores differences in performance between named-manager and anonymously managed funds; 4.3 presents evidence that the bargaining power of named managers increases following periods of good relative performance; 4.4 provides evidence that the use of anonymous management increases with hedge fund assets. In Section 5, we explicitly consider several alternative hypotheses for our findings on the use of anonymous management. In Section 6, we offer concluding remarks.

2. Data

Our data come primarily from the CRSP Survivorship-Bias Free Mutual Fund Database. Since the unit of observation in CRSP is the mutual fund share class, we aggregate data to the portfolio level (using the prior-period share of assets in each share class) to avoid double counting. In addition, to limit any potential bias associated with the backfilling of observations in CRSP, we drop observations that lack a fund name. While CRSP includes a manager name variable, since Morningstar is a more important source of information for investors than CRSP, we collect manager names from annual Morningstar Principia CDs (Del Guercio and Tkac, 2008). Merging these data onto CRSP using fund tickers yields a Morningstar manager name observation for 83.3% of the fund-year observations in CRSP between 1993 and 2004.

Both manager name variables allow us to classify a fund as sole-managed (when only one name is listed), co-managed (when two or more names are listed), or anonymously managed (when the phrase "Team Managed," "Multiple Managers," or "Investment Committee" is listed without any manager names).[3] In Table 1, we summarize the fraction of sole-managed, co-managed, and anonymously managed funds—and newly introduced funds—according to Morningstar (Panel A) and CRSP (Panel B).[4] To more accurately highlight changes in the form of management, the numbers in both panels are adjusted for regime changes in the contents of the manager name variables through time. (We describe these adjustments and report unadjusted numbers in the Appendix.) Both data sources reveal a sharp increase in the percentage of anonymously managed funds and a decline in the percentage of sole-managed funds, but the CRSP manager name variable implies significantly higher levels of anonymous management and significantly lower levels of co-management.[5]

To determine which data source more accurately reflects the information that funds disclose to their investors, we compare the Morningstar and CRSP manager name variables to each other and, for a small random sample of domestic equity funds, to the manager information disclosed in Prospectuses and Statements of Additional Information filed with the U.S. Securities and Exchange Commission. This comparison, detailed in the Appendix, reveals several interesting facts. First, between 1993 and 2004, CRSP rarely reports more than three manager names; during the majority of that time, for most of the funds for which Morningstar lists four or more manager names, CRSP simply reports "Team Managed." This suggests that the CRSP manager name variable does not allow researchers reliably to distinguish co-managed funds with more than three managers from anonymously managed funds. Since Morningstar data suggest that the fraction of funds with more than three managers is growing through time, the fraction of funds that CRSP would lead us to misclassify as anonymously managed is growing as well. Similarly, between 1997 and 2004, Morningstar reports up to seven manager names per fund, but between 1993 and 1996 it reports no more than two. The impact of any misclassifications between 1993

---

[3] "Team Managed" is by far the most common entry of the three in either data source. The Morningstar manager name variable equals "Multiple Manager" in less than 5.0% of the observations that we classify as anonymously managed according to Morningstar; it never equals "Investment Committee." The CRSP manager name variable equals "Multiple Manager" in 2.1% of the observations that we classify as anonymously managed according to CRSP and it equals "Investment Committee" in another 3.1%. Morningstar defines "Team Managed" as indicating managers who work together and "Multiple Managers" as indicating those who separately manage portions of the portfolio.

[4] Differences in the number of new funds in Panels A and B of Table 1 are driven by the fact that we use fund tickers to merge the Morningstar manager name data onto CRSP and fund tickers are most likely to be missing in the year a fund is started.

[5] Using either data source, a small portion of the increase in anonymous management is associated with index funds. Therefore, to avoid confusing the determinants of anonymous 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. Since CRSP does not identify passively managed (index) funds, we identify index funds as funds whose name contains the word index, the name of a major index, or some abbreviation thereof.

and 1996, however, is limited by the smaller number of funds and smaller fraction of co-managed funds during these four years.

It is also worth pointing out that the analysis of a random sample of SEC filings for domestic equity funds suggests that while Morningstar and CRSP both appear to extract manager names from SEC filings, Morningstar does a significantly better job of capturing the information disclosed to investors. In 2002, we estimate that Morningstar manager name accurately captures whether a fund is anonymously managed 94.7% of the time, versus 81.3% using the CRSP manager name. For this reason, and the fact that the Morningstar data are much more likely to inform investor decisions, we use the (unadjusted) Morningstar manager name variable to classify funds as sole-managed, co-managed, and anonymously managed.

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, Kiplinger's Personal Finance, SmartMoney,* and *Consumer Reports*. For the *New York Times*, we include funds mentioned in their 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 conduct a Factiva search for articles including the word "fund" and then categorized the mentions of specific funds as being either positive or negative. 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 likely discounts to estimate spending. The media mention and advertising data cover the years 1996 to 2002 and are described further 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 (2008). 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. We identify non-specialized domestic equity funds as those in the CRSP dataset with S&P objective codes of Aggressive Growth (AGG), Equity USA Midcap (GMC), Equity USA Growth and Income (GRI), Equity USA Growth (GRO), and Equity USA Small Companies (SCG). To identify recent initial public offerings (IPOs), we merge the Thomson Financial equity holdings data with the SDC New Issues Database, as described in Gaspar, Massa and Matos (2006). To study dilution from market timing, we use the daily flow data for a sample of international equity funds from Lipper and TrimTabs, as described in Zitzewitz (2006). When

we estimate risk-adjusted returns, we do so at the fund level, using their prior 24 monthly returns and factor returns available on Kenneth French's website.

To ask whether the use of anonymous management is associated with the outside options generated by the growth of the hedge fund industry, we utilize data on the geographic locations of hedge fund assets from TASS. Data on the locations of mutual fund families between 1996 and 2002 were hand-collected from the Nelson Directory of Investment Managers. Data on dollars under management by hedge funds within each asset class and year between 1994 and 2004 are reported in Getmansky, Lo, and Wei (2004).

3. Determinants of naming managers

Before testing for differences in outcomes for sole-managed, co-managed, and anonymously managed funds, we examine the empirical determinants of the disclosure choice. In general, we find that co-management and anonymous management are chosen by different types of funds. Both types of disclosure are chosen disproportionately by new funds, however, which is reasonable if changing the form of disclosure is more difficult to negotiate with ongoing named managers.

In Table 2, we report estimated marginal effects estimated via probit. The first three columns of each panel estimate determinants of co-management for fund i in year t, while the remaining three columns do so for anonymous management. The six "level" specifications in Panel A control for the same set of lagged fund characteristics that we include in later specifications: expense ratios; 12b-1 fees; portfolio turnover; fund returns, return volatility, and inflows over the prior 12 months; the natural logarithm of lagged fund and family assets; fund age; and dummy variables for whether the fund is passively managed (tracks an index) or is a no-load fund (does not charge a sales commission). When predicting management type, the specifications differ only in the number and type of fixed effects. Columns 1, 4, 7, and 10 include year fixed effects, columns 2, 5, 8, and 11 include investment objective-by-year fixed effects, and columns 3, 6, 9, and 12 include family-by-year fixed effects. The "change" specifications in Panel B mirror those in Panel A except that they add dummy variables that indicate whether fund i was anonymously managed last year, co-managed last year, or new to the Morningstar database this year (but not new to the CRSP database because we require lagged values for the other independent variables). Standard errors are clustered on mutual fund family.

In columns 1-3 and 7-9 of Table 2, we see that the likelihood of co-management increases in fund size and is higher for actively managed funds. To the extent that larger funds need more managers to overcome diseconomies of scale, the positive association between fund size and co-management is consistent with a positive correlation between manager name disclosures and fund production functions (see also Guedj and Papastaikoudi (2005)). In contrast, in the remaining columns, we see that

8

anonymous management is more common among younger funds, funds with lower expense ratios, and index funds. In addition, in some specifications, anonymous management is more likely among smaller funds.

The fact that the determinants of anonymous and co-management are distinct is consistent with our treatment of anonymous management as being distinct from co-management. That said, one might expect co-management to provide intermediate levels of the same advantages and disadvantages provided by anonymity. Sharing credit with multiple managers may not provide as clean a story and thus may not be as useful for marketing purposes, but it may keep an individual manager from claiming sole credit for a particular track record. In what follows, we test for differences in outcomes between each of the three disclosure categories, generally finding that co-managed funds experience outcomes between those of sole and anonymously managed funds.

4. Benefits and costs of naming managers

We begin by testing for the marketing benefits of naming managers by testing whether named-manager funds receive extra media coverage and inflows (4.1). Next, we test for performance differences between named-manager and anonymously managed funds by examining fund returns and their components (4.2). To shed light on ex post bargaining power, we conduct two types of tests. First, we explore the extent to which inflows fall when successful named managers depart (4.3). Second, since the growth of the hedge fund industry should have (exogenously) increased the ex post bargaining power of successful named managers, we use a difference-in-difference framework to test whether the shift to anonymous management is greater in those asset classes and geographical areas more affected by the hedge fund boom (4.4).

4.1. Named managers, the media, and investor demand

Naming managers could benefit funds through increased media attention. In our setting, the financial media both informs and persuades potential investors. For example, Sirri and Tufano (1998) and Reuter and Zitzewitz (2006) show that media mentions can significantly increase flows into mutual funds. To the extent that the financial media prefers to write—or its readership prefers to read—articles about named managers, families with named-manager funds can expect to benefit. To explore this possibility, we study the determinants of media mentions and ask whether anonymously managed funds are less likely to receive mentions than their sole-managed and co-managed peers.

Table 3 presents probit regressions predicting positive media mentions in the *New York Times, Money magazine, Kiplinger's Personal Finance, SmartMoney,* and *Consumer Reports*, as well as a sixth specification predicting a positive mention in any of the five publications. The unit of observation is fund

i in month *t* and the sample period is January 1996 through November 2002. In addition to dummy variables for whether a fund is anonymously managed or co-managed, these regressions control for expense ratios; 12b-1 fees; portfolio turnover; fund returns, return volatility, and inflows over the prior 12 months; the natural logarithm of lagged fund and family assets; fund age; the number of stars awarded to the fund by Morningstar in December of the prior year; and an indicator variable for whether the fund charges a sales commission (load). (Since Morningstar ratings can vary across share classes, we set our "five star fund" control variable, for example, equal to the share of assets in share classes that receive a five star rating.) 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.[6]

To control for variation in the popularity of different asset classes at different times (and the fact that not every publication mentions mutual funds in every month), each regression includes a fixed effect for each investment objective-month combination. Given the finding of Reuter and Zitzewitz (2006) that advertising influences mentions in some of these publications, we also control for total and own-publication print advertising expenditure over the prior 12 months. Standard errors are clustered on mutual fund family.[7]

We find that anonymously managed funds are less likely to receive positive media mentions than both sole-managed funds (the omitted category) and co-managed funds. The coefficients on the anonymous management dummy are negative in all six specifications and statistically significant from zero in five of the six. Furthermore, in five of the specifications, the coefficient on the anonymous management dummy is less than the coefficient on the co-managed dummy, and in four of these cases, we can reject the hypothesis that the coefficients are equal (with p-values ranging from 0.004 to 0.034). Collectively, these results strongly suggest that the media favors sole-managed funds over co-managed funds and both types of named-manager funds over anonymously managed funds.[8] Since it should be

---

[6] We 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.

[7] Through the paper, we cluster standard errors on the single dimension (either family or time) that leads to the largest standard error on the variable of interest. For specifications predicting anonymity, media mentions, or flows we cluster on family; for specifications predicting returns, we cluster on time. We cluster on family rather than fund since clustering on family allows for clustering within subgroups of families, including within individual funds. We have also experimented with two-dimensional clustering (e.g., family and month) and found that standard errors are quite similar and statistical inferences are unaffected. Conclusions are also unaffected if we use the procedure outlined in Fama and MacBeth (1973) to estimate coefficients and standard errors.

[8] In unreported regressions, we replace the co-management dummy variable with a variable equal to the inverse of the number of named managers (and zero if the fund was anonymously managed). In this specification, the anonymous management coefficient estimates the difference between anonymous managed fund and a hypothetical fund managed by an infinite number of named co-managers. In general, we find results that are consistent with those in Tables 3, 4, and 5; anonymously managed funds receive significantly fewer media mentions and inflows,

more difficult for a journalist to identify and interview anonymous managers, it seems plausible that the differences we document are causal.[9]

A comparison of coefficients reveals that the preference for named-manager funds is economically significant. For instance, relative to being sole-managed, being anonymously managed reduces the likelihood of a positive mention in any of the five publications (column 6) by about half as much as being a load fund, or by almost as much as receiving one star (the lowest possible rating) from Morningstar. In unreported regressions, we find that the preference for named-manager funds is, not surprisingly, largest in articles profiling a single fund or manager. However, it is still significant for predicting inclusion in other types of articles and on lists of recommended funds such as the *Money 100*. Interestingly, named-manager funds also receive more negative mentions, although this is less of a disadvantage than one might suppose, since negative mentions are difficult for most investor to act on (since funds cannot be sold short) and since they are relatively rare. (In our sample of publications, they are outnumbered by positive mentions by a factor of roughly eight).

In other unreported regressions, we re-estimate the specification predicting any positive media mention (column 6) separately for each year between 1997 and 2002. We find the strongest preference for named managers during the bull market between 1998 and 2000. In addition, we find that the proportion of articles that profiled a single fund and manager was also especially high during this period, which is consistent with the differences in advertising content during the period documented by Mullainathan and Shleifer (2006).

As we have argued, the marketing benefits of named managers should not be limited to increased media mentions, but should extend to higher inflows. To study this issue, in Table 4, we turn from probit regressions predicting media mentions to linear panel regressions predicting monthly net flows. These regressions allow us to test whether flows into named-manager funds differ systematically from flows into anonymously managed funds—both before and after controlling for the impact of media mentions. The unit of analysis is, again, fund i in month t. For the purposes of this analysis, we restrict our sample to the 99.84% of observations with continuously compounded monthly flows between -100% and 100%, and we include the same control variables as in Table 3. In particular, we continue to include fixed effects for each investment objective-month combination, so that we are effectively measuring each

---

but their returns are not statistically significantly different from co-managed funds. We thank the referee for suggesting this alternative specification.

[9] In unreported regressions, we find that including co-managed and anonymously managed dummy variables based on CRSP has little impact on the estimated coefficients on the co-managed and anonymously managed dummy variables based on Morningstar and provides no additional explanatory power. These findings reinforce our view that the CRSP manager name variable is essentially just a noisier version of the Morningstar manager name variable.

fund's flow relative to the average level of flow within the same investment objective and month. Standard errors are clustered on mutual fund family.

Within our full sample of funds, we find that anonymously managed funds receive monthly net flows 16.7 basis points lower than those received by comparable sole-manager funds (column 1) Moreover, we can reject the hypothesis that net flows into anonymously managed funds equal those into co-managed funds at the 5-percent level (p-value of 0.046). However, the estimates in column 1 mask significant heterogeneity across mutual fund distribution channels. When we follow Bergstresser, Chalmers, and Tufano (2008) and allow the impact of anonymous management and co-management on flows to differ across distribution channels (in columns 2 and 3), we find that anonymity has a greater impact on flows for those funds marketed and sold directly to retail investors (no-load funds). The difference between sole-managed and anonymously managed is 23.8 basis points per month for no-load funds (p-value of 0.028) versus 10.2 basis points for load funds (p-value of 0.249). In column 3, when we do not control for lagged net flows, the differences are 26.9 basis points per month for no-load funds (p-value of 0.075) versus 15.1 basis points for load funds (p-value of 0.215).

Under the joint alternative hypothesis that manager name disclosures are nonstrategic and investors seek to invest in those funds with the highest expected returns, net flows should only favor sole-managed (or co-managed) funds to the extent that these characteristics proxy for higher expected returns. While we find some differences in net returns below (in section 4.2), these differences are economically small.

In the remaining columns, we attempt to determine how much of the lower flows into anonymously managed funds can be explained by the media's preference for named managers. To do so, we restrict our sample to 1997-2002, when we possess data on both Morningstar ratings and media mentions. Columns 4 through 6 include the same control variables as before; columns 7 through 9 add lagged Morningstar ratings and media mentions. Adding the additional controls reduces the coefficient on anonymous management by approximately 20% (e.g., from -23.7 basis points in column 4 to -19.4 basis points in column 7), suggesting that an economically significant fraction—but certainly not all—of the additional flows into no-load funds are associated with the media mentions in our data. In other words, it appears that perceived quality differences between named-manager and anonymously managed funds significantly impact fund flows. Overall, the results in this section lead us to conclude that named managers benefit their firms through increased media mentions and, especially in the case of no-load funds, increased flows beyond those simply implied by the increased media attention.

4.2. Named managers and fund performance

We now ask whether named manager funds generate significantly higher returns that their anonymously managed peers. To the extent that manager name disclosures reflect differences in production functions which have been optimized across families (Almazan, Brown, Carlson, and Chapman, 2004), mutual

fund managers lack skill (Carhart, 1997)), or mutual fund investors equalize expected returns through their flows (Berk and Green, 2004), we should observe no differences in returns.

Our first set of results on the relation between performance and manager disclosure are reported in Table 5. In the first three columns of Panel A, we restrict our sample to actively managed domestic equity funds and use panel regressions to test for differences in the net (after-expense) and risk-adjusted returns of sole-managed, co-managed, and anonymously managed funds. The set of control variables and fixed effects mirror those in Table 4, except that in columns 2 and 3, we replace lagged net returns with lagged one-factor and four-factor alphas, respectively. Standard errors in these (and all other return regressions) are clustered on month.

We find weak evidence of return differences; coefficients on the anonymously managed dummy range from -0.7 to -3.4 basis points per month, but are not statistically significant even at the 20-percent level.[10] In columns 4 and 5, we find that anonymously managed funds have significantly lower expense ratios and portfolio turnover than other funds within the same investment objectives and month.[11] (Because expense ratios and portfolio turnover are likely to persist through time, the standard errors in columns 4 and 5 are clustered on family.) The higher expense ratios on sole-manager funds are interesting for two reasons. First, they are consistent with sole-managers generating higher revenues for their firms through increased product differentiation. Second, to the extent that sole-managed funds earn the same net returns as anonymously managed funds, they do so despite having expense ratios that are almost 1.5 basis points higher per month.

Given the relatively large standard errors in columns 1 through 3, we cannot rule out the existence of economically significant differences in performance. To increase the power of our tests, we follow Grinblatt and Titman (1993) and Kacperczyk, Sialm, and Zheng (2008) and decompose fund net returns into expense ratios, the gross returns implied by the fund's previously disclosed holdings, and the remainder, which KSZ refer to as the "return gap." Since we possess matched U.S. equity holdings data for 1994 to 2002, we are able to estimate monthly prior holding returns and monthly return gaps for the

---

[10] This is roughly consistent with other work on returns differences between single and multi-manager funds, a category that combines co-managed funds together with anonymously managed funds. Using samples that differ in terms of time periods and types of funds studied Prather and Middleton (2002), Chen, Hong, Huang, and Kubik (2004), and Bliss, Potter, and Schwarz (2008) find that multi-manager funds underperform sole-managed funds by between 0 and 4 basis points per month. When we replace our anonymously managed and co-managed dummies with a multi-manager dummy, and re-estimate the specifications in columns 1 through 3, the coefficients on the multi-manager dummy are -0.8 (p-value of 0.630), -2.0 (p-value of 0.202), and -2.5 (p-value of 0.063) basis points per month. Baer, Kempf, and Ruenzi (2005) compare sole-managed funds with anonymously managed funds, as classified by CRSP, and find slightly larger differences.

[11] We classify Potomac, ProFunds, and Rydex funds as specialized domestic equity funds, thereby excluding them from the analysis in Tables 5 and 6. These funds have exceptionally high portfolio turnover (approximately 20 times the average fund in our sample) and, beginning in 1999, tend to be anonymously managed. Including these funds changes the sign on the coefficient on the anonymously managed dummy in the analysis of turnover from negative to positive but does not otherwise alter our results.

set of actively managed domestic equity funds over this period (taking care to adjust the prior holdings return for a fund's non-stock holdings).[12] In the first three columns of Panel B, our dependent variables are fund i's net (after-expense) return, the predicted return based on its prior holdings, and its return gap. We continue to include but do not report coefficients for the control variables.

We find, in column 8, that anonymously managed funds exhibit more negative return gaps than sole-managed funds. By this less noisy measure of before-expense performance, anonymously managed funds underperform named-manager funds by 3.5 basis points per month (p-value of 0.084), which is approximately 42 basis points per year. Moreover, we can reject the hypothesis that the coefficients on the anonymously managed and co-managed dummies are equal at the 10-percent level (p-value of 0.063). In other words, once we isolate a component of returns that past work has shown to be persistent, we find evidence that anonymously managed funds underperform their named-manager peers.

What explains the underperformance of anonymously managed funds? One hypothesis, motivated by the literature on asset ownership and incentives (Holmström and Milgrom, 1991), is that named manager funds earn higher returns because they attract better managers or induce more effort. Another hypothesis, motivated by the recent literature on favoritism (Gaspar, Matos, and Massa, 2006), is that named manager funds earn higher returns because the marketing benefits documented above make it more profitable for mutual fund families to actively boost the returns of their sole-managed (or co-managed) funds. To distinguish between these two hypotheses, we explore the determinants of the differences in return gaps.

As KSZ discuss, a negative return gap can have multiple sources. For example, funds with negative return gaps could do more trading, thereby paying higher transaction costs in the form of trading commissions or price impact. We have already seen (column 5), however, that anonymously managed funds have lower portfolio turnover. When we study the number of stocks that funds report holding at fiscal year ends (column 10), we find that anonymously managed funds hold less concentrated portfolios, which is also consistent with anonymously managed funds being less actively managed. (Almazan et al. (2004) find that multi-manager funds (anonymously managed and co-managed funds taken together) face more investment restrictions, which is also consistent with anonymously managed

---

[12] When a fund invests less than 100% of its portfolio in common stock, we assume that its non-stock holdings earn the risk-free rate of return (as reported on Kenneth 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% of assets on average), and the assumption only biases our tests to the extent that anonymously managed funds hold a different mix of bonds than named-manager funds within the same investment objective and month.

funds having less active management.) Therefore, the lower returns we find for anonymously managed funds do not appear to be the result of higher transaction costs arising from active management.[13]

Does the underperformance of anonymously managed funds reflect favoritism for named-manager funds? If so, we would expect greater evidence of favoritism in those mutual fund families that have both anonymously managed and named-manager funds. Indeed, this is what we find. Adding family-month fixed effects to the return gap regression in column 9 of Table 5 reveals that the named-manager versus anonymous management difference is larger within families (5.6 basis points per month) than it is between families. This finding prompts us to conduct two additional sets of tests for favoritism.

Our first set of additional tests is based on the idea that named managers will have to endure less return diversion in their funds. Specifically, because dilution is one potential contributor to negative return gaps, we ask whether anonymously managed international funds suffer 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 2000 to 2003.[14] We find that the average (univariate) impact of fund arbitrage on returns is 9.2 basis points per month in anonymously managed funds but only 3.3 basis points per month in named-manager funds. In columns 2 and 3 of Table 6, we report coefficients from pooled regressions that control for fund characteristics. Without the family-month fixed effects, we find that the coefficient on the anonymously managed dummy implies 2.7 basis points more dilution per month than in sole-managed funds (significant at the 1-percent level). Adding family-month fixed effects, the coefficient increases to 6.1 basis points per month (significant at the 5-percent level), which suggests that families with a mixture of anonymously managed and named-manager funds are more willing to permit dilution from stale price arbitrage in their anonymously managed funds. While we cannot rule out the possibility that named manager funds attract managers who are better able to prevent stale price arbitrage and late trading, our findings are consistent with families rationally choosing to favor their named-manager funds.

Our final set of tests is also based on the idea that named manager funds could receive preferential treatment. Here, we focus on IPOs and ask whether IPO allocations differ across named-manager and anonymously managed funds. To the extent that families want to boost the performance of their named

---

[13] Whether 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 (2008) find that holding concentrated portfolios is also negatively correlated with returns. In contrast, Kacperczyk, Sialm, and Zheng (2005) and Cremers and Petajisto (2008) use different measures and find that portfolio concentration is positively correlated with returns.

[14] Following Zitzewitz (2006), dilution is defined as the sum of the product of daily flows times the difference between the actual net asset value per share (NAV) used for the transaction and a fair-value NAV as of a time known to be after the transaction (9 PM Eastern time in this case to allow for possible late trading). Zitzewitz (2009) discusses alternative methods of measuring dilution. We use the Zitzewitz (2006) method here because it is the least affected by market returns that follow trading decisions, resulting in the least noisy estimates in short time periods.

manager funds, we expect them to receive more and more valuable IPO allocations. IPO allocations are not disclosed directly, but funds disclose holdings on a quarterly basis. Following Reuter (2006) and Gaspar, Massa, and Matos (2006), we use as a proxy for IPO allocations the holdings of an IPO on the first post-IPO quarterly holdings disclosure. While these holdings would include post-IPO purchases and exclude IPO shares that were sold before the disclosure date, past work has concluded that this proxy is likely to be informative about true IPO allocations. 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-specialty 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. In each case, the unit of observation is fund i in quarter t, and standard errors are clustered on quarter. Recognizing that reported holdings of recent IPOs are noisy proxies for actual allocations, in column 4, 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 column 4 via probit and report marginal effects. The coefficient on the anonymously managed dummy variable is -1.8% and statistically significant at the 1-percent level, suggesting that anonymously managed funds are less likely to receive IPO allocations. Since only 8.9% of funds report holding shares of any recent IPOs, the size of the difference is economically significant.

In column 5, we explore the relative size of IPO allocations to named-manager and anonymously managed funds. The dependent variable is the ratio of the value of fund i's holdings of recent IPOs to the fund i's end-of-quarter TNA. Since this variable equals zero much of the time and cannot be negative, we estimate the coefficients in column 5 via Tobit. The negative and statistically significant coefficient on the anonymously managed dummy implies that anonymously managed funds receive slightly smaller IPO allocations than do named-manager funds.

Finding evidence consistent with anonymously managed funds receiving fewer and smaller IPO allocations than their named-manager peers, we next ask whether anonymously managed funds are less likely to receive allocations of underpriced IPOs. The dependent variable in column 6 is a dummy variable that equals one if fund i's reported holdings suggest that the fund earned positive returns from underpricing during the past quarter. We estimate column 6 via probit and report marginal effects. The coefficient on the anonymously managed dummy variable is -2.6% and statistically significant at the 1-percent level, suggesting that anonymously managed funds are less likely to receive allocations of underpriced IPOs.

Finally, we attempt to quantity the impact of IPO allocations on fund returns. 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 i's end-of-quarter TNA. 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 earn negative underpricing on its IPO holdings, and zero when the fund does not report holding shares of any recent IPOs. We estimate the coefficients in column 7 via OLS. The negative coefficient on the anonymously managed dummy indicates that anonymously managed funds receive less of a boost to their performance from underpriced IPOs than do sole-managed or co-managed funds. However, the implied difference in performance is 0.45 basis points per quarter, suggesting that differences in favorable IPO allocations are but one source of the return gap differences of roughly 4 basis points per month.

Taken as a whole, the results in this section demonstrate that anonymously managed funds earn slightly lower returns than their named-manager peers and that these lower returns reflect, at least in part, less favorable IPO allocations and more return dilution from stale price arbitrage. These patterns are consistent with the family being willing to boost the performance of its named managers to benefit from the superior marketing impact. They are also consistent with named-manager funds having more bargaining power within their family than their anonymously managed peers.

In either case, it is interesting to note that these return patterns help to resolve a puzzle raised by the cross-subsidization literature. This puzzle, first raised in Gaspar, Massa, and Matos (2006), is why some fund managers would consistently agree to subsidize the funds of other fund managers within their family. The fact that we find cross-subsidization flowing from anonymously managed funds to named-manager funds, however, is consistent both with the lower sensitivity of anonymously managed funds inflows to returns and with the lower bargaining power of anonymous managers.

4.3. Bargaining power and the cost of naming managers

While the above evidence points to several potential benefits of using named managers, their declining prevalence suggests that using named managers is not costless. In this section, we ask whether named managers enjoy increased bargaining power following periods of good performance. Ideally, if we observed wages for both named and anonymous fund managers, we could directly measure the additional costs of retaining successful named managers. 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 flow-performance relation when named managers depart.[15]

---

[15] According to a pension fund manager that we interviewed, with the rise of hedge funds and private equity funds, "mutual funds fear that anyone they market based on performance will leave after a year or two, frustrating their existing investors." This motivates our analysis in sections 4.3 and 4.4.

In Table 7, we extend our earlier analysis of monthly net flows by controlling for the departure of named managers. In column 1, we replace the fund's net returns over the prior 12 months with its within-objective performance ranking over the prior 12 months; this ranking equals zero for the worst performing fund within the objective and one for the best.[16] We also add a dummy variable indicating whether one or more named managers departed during the prior 12 months. (This dummy variable equals one if the fund transitioned from named managers to anonymous management. By construction, the named manager turnover variable is zero for anonymously managed funds because neither investors nor econometricians are able to observe the turnover of anonymous managers.) To determine whether flows into anonymously managed and co-managed funds are less sensitive to return rankings, we interact the return ranking with the anonymously managed and co-managed dummy variables, respectively. To shed light on the bargaining power of successful named managers, we interact the return ranking with the named-manager turnover dummy. Column 2 adds controls for the fund's past return squared and within-objective rank squared. Column 3 omits the fund's net flows over the prior 12 months. The identifying assumption in our tests is that manager turnover is exogenous to future investor demand for the fund (i.e., managers are not more likely to leave those funds with unexpectedly lower future flows, conditional on the variables for which we control). As in Table 4, standard errors are clustered on mutual fund family.

The coefficient on the interaction between within-objective return ranking and named manager turnover is negative and statistically significant (at the 5-percent level and below) in each of the three specifications, which suggests that the inflows generated by better performance are attenuated when one or more named manager departs soon thereafter. The fact that successful named manager departures reduce fund inflows implies that successful named managers have greater bargaining power with their firms. This, in turn, implies that named managers should earn more of the rents accruing to good performance.[17]

4.4. Hedge fund competition and the anonymous management of mutual funds

According to several industry participants we interviewed, competition from the hedge fund industry for managers with strong track records increased substantially over the past decade. Despite the fact that

---

[16] We use return rank here only because its zero-to-one scaling makes the coefficients easier to interpret. The results in Tables 4 and 7 are qualitatively similar regardless of whether we use returns or return rankings.

[17] Within 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 7 that investors' inflows suggest they expect good performance to be less persistent when a named manager departs.

potential hedge fund employers may be able to identify the managers of anonymously managed funds through other information channels, when a manager's role is not acknowledged in databases like Morningstar, the cost of doing so is increased—for both the potential employer and her clients.[18] Therefore, to the extent that the hedge fund boom differentially increased outside opportunities for successful named managers, it should have increased the costs associated with retaining successful named managers, reducing ex ante joint surplus when managers are risk averse and leading managers and firms to prefer more anonymous management. In this section, we test the link between managerial bargaining power and the incidence of anonymous management by testing whether the use of anonymous management is greater in those asset classes and geographical areas with more hedge fund assets.

While the overall growth in hedge fund assets has been close to monotonic, Panel A of Table 8 (based, in part, on data from Getmansky, Lo, and Wei (2004)) reveals that the growth rates of different asset classes have varied through time. For example, after the 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. Similarly, the asset share of domestic equity hedge funds peaked with the U.S. stock market, while debt-oriented hedge funds gained share during the low interest-rate environment between 2002 and 2004. The trends for mutual fund asset shares, reported in Panel B for comparable asset categories, are much less pronounced. Since a successful mutual fund manager should be most employable within her broad asset category, the patterns in Table 8 suggest that competition from the hedge fund industry should have peaked for different mutual fund asset classes at different times.

In Table 9, to test the impact of hedge fund competition on the labor market for fund managers, we take two, essentially uncorrelated, difference-in-difference approaches to identification. In the first approach, we test whether the shift to anonymity was faster in asset classes that experienced faster hedge fund asset growth. This exploits events such as the collapse in demand for internationally-oriented hedge funds after LTCM failed in 1998, which was accompanied by a slowdown in the shift to anonymity for internationally-oriented mutual funds. In the second approach, we test whether the shift to anonymity was faster in states or cities with faster hedge fund asset growth. In both experiments, we include time period fixed effects (interacted with either family or investment objective, as appropriate). Since the general time series growth in hedge fund assets gets absorbed in the time trends, we are exploiting

---

[18] In part, this is for a non-obvious legal reason. In 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).

within-time-period, cross-sectional variation in manager bargaining power. In other words, our test results are not driven by the fact that the general time-series growth in hedge fund assets coincided with an increase in anonymity.

First, we test whether funds are more likely to use anonymous teams when same-category hedge fund assets are higher. The independent variable of interest in columns 1 and 2 of Table 9 is the natural logarithm of hedge fund assets in the same broad investment objective as fund i, where hedge fund assets are measured at the end of the prior calendar year. In addition to our standard set of control variables, we include a separate fixed effect for each investment objective and for each family-year pair. The inclusion of time period fixed effects ensures that identification comes from cross-sectional variation across hedge fund asset classes—caused, for example, by the collapse in demand for internationally oriented hedge funds after LTCM failed in 1998—rather than time-series variation in the overall size of the hedge fund industry. We also include the natural logarithm of mutual fund assets with the same broad investment objective as fund i. Column 2 controls for lagged management status, while column 1 does not. Standard errors are clustered on investment objective.

In both specifications, the coefficients on same-category hedge fund assets are positive and statistically significant, supporting the hypothesis that the shift to anonymous mutual fund management was faster in asset classes experiencing faster hedge fund growth. These findings also provide evidence for our more general hypothesis that mutual funds weigh the expected ex post bargaining costs of successful managers when deciding whether to use named or anonymous managers.

Second, we test whether the move toward anonymous management was more pronounced in geographic areas with more overlap between mutual funds and hedge funds, under the assumption that these are the areas in which labor market competition for successful fund managers should be strongest. Data from TASS on the business addresses of hedge funds suggest that the U.S. hedge fund industry is quite concentrated near New York City, with New York State, Connecticut, and New Jersey accounting for 55%, 7%, and 3% of total assets during our time period.[19] 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, with these cities accounting for 24% and 16%, respectively, of the mutual funds assets in our sample.

In columns 3 and 4 of Table 9, we test whether mutual funds in states with more hedge fund assets are more likely to adopt anonymous management. The new variable of interest is the natural logarithm of hedge fund assets in the same state as fund i, again measured at the end of the prior calendar year. Since

---

[19] Hedge 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% were in New York and 11% in suburban New York. Boston had the second most listings of any major city, with 9%.

this variable varies at the state level we are able to include fixed effects for each objective-year pair and for each family, and the standard errors are clustered on state. The resulting coefficients on same-state hedge fund assets are positive and statistically significant, confirming our prediction that the shift to anonymity should have been relatively faster in those states with faster hedge fund asset growth.

Since the majority of hedge fund assets are located in Boston and New York City, as a robustness check, we focus on the use of anonymous teams in these cities. We include dummy variables indicating whether fund i is located in Boston or New York City, and we interact these city dummy variables with the natural logarithm of hedge fund assets at the end of the prior calendar year. These specifications include objective-year fixed effects and the standard errors are clustered on state.

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. This suggests that, everything else equal, mutual fund families headquartered in Boston and New York City are less likely to use anonymous management. However, consistent with our hypothesis that the use of anonymous teams is related to the level of hedge fund assets, we find that the coefficients on our lagged hedge fund asset-city interaction terms are positive and statistically significant. The magnitudes of the coefficients are also economically significant. For example, the coefficients on the interaction terms in column 5 imply that the relative probability of Boston-based and New York City-based mutual funds reporting anonymous management increased by 9.7 and 5.6 percentage points from 1996 to 2002, respectively.

Collectively, the results in Table 9 suggest that the move towards anonymous management by mutual funds was strongest in those asset classes and locations with the most hedge fund assets. It is worth reiterating that these results are not driven by general time series trends. Rather, because we include time period fixed effects, we follow a standard difference-in-difference approach and identify off of cross-sectional differences in the growth of hedge funds in different asset classes or geographical areas. When we remove the time period fixed effects and use the overall level of hedge fund assets for identification, our results get much stronger.

5. Discussion

The various coefficients in Table 9 imply that the seven-fold growth of the hedge fund industry explains between 10% and 40% of the 14 percentage point increase in managerial anonymity reported in Table 1. While economically significant, there is room for several additional explanations for the rise of anonymous management. For example, another explanation—which is also consistent with our tradeoff hypothesis—is that the decline in the media preference for named-manager funds after 2000 reduced the marketing benefits of naming managers.

A second candidate explanation for the rise of anonymous management is that, during our sample period, mutual fund firms were responding to a growing preference by investors for consistent management styles—as signaled by consistent management teams. One would expect, however, that a preference for stable management would lead primarily to increased demand for co-managed funds, since disclosure of manager names facilitates the monitoring of team stability.

A third possibility is that long-only inefficiencies decreased over our sample period, making it more difficult to become a star mutual fund manager. Indeed, consistent with this idea, we find evidence (in unreported regressions) that equity and debt mutual fund returns (risk-adjusted or not) have become less persistent over our time period. The fact that index funds are likely to be anonymously managed suggests a fourth (related) candidate explanation for the rise of anonymously managed funds. To the extent that mutual funds moved towards more mechanical investment strategies over our sample period, they would have had less need to disclose manager names.[20] To explore whether anonymous management proxies for more mechanical investment strategies we use the measure of active management developed by Cremers and Petajisto (2008). Active share measures the minimum proportion of the portfolio that would need to be traded to replicate the benchmark that the fund is supposed to track. To the extent that funds following mechanical investment strategies can hold more positions and more closely resemble their index than funds following more traditional stock picking strategies, this alternative explanation suggests that anonymously managed funds will have significantly lower active shares than named-manager funds.

In unreported regressions that include the same control variables as the return regressions in Table 5 (i.e., fund characteristics plus objective-by-month fixed effects), we find that the active shares of anonymously managed funds are approximately two percentage points lower than the active shares of sole-managed funds (the omitted category). While this difference is statistically significant at the 5-percent level, it is economically small given that the cross-sectional standard deviation of the active share measure is 14%. Moreover, when we add family-by-month fixed effects, the estimated coefficient on the anonymously managed dummy variable is both attenuated and no longer statistically significantly different from that of sole-managed funds. In other words, within families running both sole-managed and anonymously managed funds, the active shares of the two types of funds are indistinguishable. Overall, we view these findings as being inconsistent with anonymously managed funds following significantly more mechanical investment strategies than named-managed funds, especially within the same family.

While the alternative explanations considered above could have contributed to the rise of anonymity between 1993 and 2004, they are likely to have done so more gradually and uniformly across cities and

---

[20] We thank the referee for suggesting this alternative explanation to us.

asset classes. In other words, these alternative explanations are unlikely to explain our findings in Table 9, which exploit within-time-period, cross-sectional variation in manager outside options.

Finally, our interpretation that mutual fund families actively weigh the expected marketing benefits of named management against the expected rent sharing costs is corroborated by interviews with numerous mutual fund firms that we conducted at the beginning of the project. When we asked industry participants to explain the rise of anonymity in Table 1, one CEO stated that "stars are good for marketing, especially with retail investors, ... but [named] managers are more expensive to pay." Providing support for our argument that successful named managers are more valuable to hedge funds, several industry participants also confirmed that a named manager, especially one who has been promoted in the media, can more readily attract hedge fund assets than an anonymous manager at an equally successful fund. This was confirmed in a recent article in the *Wall Street Journal*, in which Fidelity described its decision to begin replacing its traditional one manager per fund system with groups of managers that oversee multiple funds as partly motivated by labor market competition: "the team approach is also a kind of an insurance policy... so that investors don't flee when a superstar leaves—as more have in recent years to work for hedge funds."[21] While anecdotal, these statements complement our statistical evidence that the loss of successful named managers reduces future fund flows and that labor market competition from hedge funds for successful named managers has increased through time.

6. Conclusion

We study the choice between named and anonymous management in the mutual fund industry and show that this choice reflects a tradeoff between the marketing benefits of naming managers and the costs associated with their increased bargaining power. Specifically, we show that the primary benefits of naming managers arise from additional media mentions and flows. Funds with named managers receive more positive media mentions, have greater inflows, and suffer less return diversion. Moreover, our evidence of return differences between named-manager and anonymously managed funds is consistent with family-level decisions to exploit these marketing benefits. With respect to the added rent-sharing costs of named managers, we find that inflows decline when successful named managers depart. Finally, consistent with the growth of the hedge fund industry increasing bargaining power relatively more for successful named managers, we also find that the shift to anonymous management is greater in those asset classes and geographical areas with more hedge fund assets.

---

[21] Levitz, Jennifer. "Fidelity, in Reversal, Takes Team Approach --- Group of Managers to Run New Fund Lineup in Bid to Lift Net-Sales Ranking." *Wall Street Journal* 25 Oct 2007: C13.

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.[22] 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 almost every fund. While this change technically ends the era of anonymous management that we study, it appears that anonymity will persist in another form. In particular, for funds formerly listed as anonymously managed, Morningstar now lists as many as 67 manager names (see the Old Mutual Balanced Fund, OMABX, for example), thereby blurring the distinction between co-managed and anonymously managed funds.

Our findings have ambiguous implications for the question of whether the mandatory disclosure of manager names is beneficial for either the industry or the investing public. To the extent that naming managers results in higher returns, everything else equal, it will benefit investors. The return differences that we find are fairly small, however, and likely driven by within-family favoritism of named-manager funds. Consequently, any return benefits of naming formerly anonymous managers—for example in the form of more equitable allocations of IPOs—likely will 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 choose firms and managers. To the extent that these effects help to explain the fact that expense ratios were 17 basis points higher for named-manager funds, they suggest that eliminating anonymity for any given fund could put upward pressure on its expenses. The equilibrium consequences for fund expenses of eliminating all anonymous management are, of course, less clear.

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

---

[22] Disclosure Regarding Portfolio Managers of Registered Investment Companies, Security and Exchange Commission Release 33-8458.

At the same time, 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 managers, 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 her employer's goals. Sharing credit can be in the firm's interest, but in many cases, firms need to ensure they retain enough credit for themselves.

Appendix. Assessing the accuracy of CRSP and Morningstar manager name data

In this appendix, we compare the Morningstar manager name variable, which retail investors are more likely to rely upon and which we rely upon in our analysis, with the CRSP manager name variable, which typically have been relied upon in other academic studies. For a stratified random sample of domestic equity funds in 2002, we also compare the Morningstar and CRSP manager name variables to the information disclosed within Prospectuses and Statements of Additional Information.

In Table A1, we summarize the manager name variables from Morningstar (Panel A) and CRSP (Panel B) for the period 1993-2004. The first six columns indicate the fraction of manager name variables that report one manager name, two manager names, three manager names, four or more manager names, anonymous management, or the name of an asset management company (e.g. "Janus Capital"). These fractions are based on the actual, unadjusted manager name variables. We classify a fund as anonymously managed when the manager name variable contains a phrase like "Team Managed," "Multiple Managers," or "Investment Committee" and does not list any manager names.[23]

According to both data sources, there is a substantial decline between 1993 and 2004 in the fraction of sole-managed funds. For example, according to Morningstar, it falls from 71.0% to 40.6% over our sample period. The rise in anonymous management is also evident in both data sources, but the increase is larger and more monotonic using the CRSP manager name variable. The larger number of anonymously managed funds in CRSP reflects the fact that CRSP rarely reports more than three manager names, despite evidence from Morningstar that the number of funds with four or more named managers is increasingly over time. In other words, a significant fraction of the anonymously managed funds according to CRSP are co-managed funds with four or more named managers. Other differences in the fraction of anonymous management reflect regime changes in the content of the Morningstar and CRSP manager name variables.

To more accurately capture the rise in anonymous management, in the last three columns of Table A1, we adjust the fraction of sole-managed, co-managed, and anonymously managed funds for two such regime changes. (These adjustments only apply to Tables 1 and A1. The management classification that we use in all other tables is based on the raw Morningstar manager name variable.) In Panel A, the drop in the fraction of anonymous management from 17.0% in 1996 to 7.6% in 1997 reflects that the fact that, prior to 1997, Morningstar classified any fund with more than two named managers as "Team Managed," leading us to erroneously classify funds with three or more named managers in the first four years of our sample as anonymously managed. In the last two columns of Panel A, we use the fact that

---

[23] When the manager name variable includes one or more manager names and the phrase "Team Managed" we use the number of named managers to classify the fund as sole-managed or co-managed. There are 27 fund-year observations in which Morningstar reports "No Manager." The majority of these are index funds and fund of funds. We classify these funds as being anonymously managed, although none of our results are sensitive to this decision.

68.1% of the funds classified by Morningstar as anonymously managed in 1996 are reclassified as co-managed funds in 1997 to adjust the fractions of co-managed and anonymously managed funds between 1993 and 1996. (Similarly, the drop in the fraction of anonymous management between 2001 and 2002 could reflect Morningstar's increased propensity in 2002 to list five or more manager names.) In Panel B, we adjust the fractions of sole-managed, co-managed, and anonymously managed funds for the fact that CRSP essentially no longer reports firm names in its manager name variable after 1999. Here, we use the distribution of transitions from "Firm Name" to sole-managed (57.2%), co-managed (20.1%), and anonymously managed (22.7%) between 1993 and 2000 to re-distribute "Firm Name" funds across the three categories.

When we examine (in unreported tabulations) how well the CRSP manager classification agrees with the Morningstar manager classification, we find two interesting patterns. First, agreement on anonymous management is much higher in 1997-2004 (73.1%) than in 1993-1996 (39.2%), when Morningstar classifies funds with three or more named managers as anonymously managed. Second, of the thousands of funds that Morningstar classifies as having four or more named managers, CRSP classifies 62.6% as being anonymously managed. This reinforces the fact that CRSP tends to misclassify funds with four or more named managers as anonymously managed.

Our evidence that Morningstar and CRSP both misclassify at least some co-managed funds as anonymously managed raises a question about the accuracy of either data source. Since our analysis focuses on a mutual fund's decision about whether or not to name its managers, we want variation in our anonymously managed dummy variable to be driven by variation in whether the fund discloses manager names to its investors—rather than by variation in the rules that Morningstar uses to process the manager name data.

To assess the extent to which the Morningstar (and CRSP) manager name variables reflect what mutual funds disclose to their investors, we hand-collect manager data from Prospectuses and Statements of Additional Information for a random sample of 130 domestic equity funds in 2002. Specifically, we partitioned the sample into four bins based on whether neither CRSP nor Morningstar classified the fund as anonymously managed, only CRSP classified the fund as anonymously managed, only Morningstar classified the fund as anonymously managed, or both CRSP and Morningstar classified the fund as anonymously managed. We then randomly sampled either 20 or 45 funds from within each bin and determined the percentage of the funds that report being anonymously managed in their SEC filings.

Table A2 summarizes the findings from this stratified random sample. Overall, we find that Morningstar more accurately captures the content of the filings than does CRSP. In particular, of the 45 funds that CRSP lists as anonymously managed but that Morningstar does not, we are able to locate one or more manager name for 37 (82.2%) of the funds. In virtually every one of these cases, the filing states

that the fund is team managed but goes on to list manager names, providing further evidence that CRSP does not reliably distinguish between anonymous management and co-management. In the much less common case in which Morningstar lists the fund as being anonymously managed but CRSP does not, Morningstar is correct 60.0% of the time. Extrapolating from the stratified random sample to the full sample of domestic equity funds in 2002 suggests that Morningstar accurately captures anonymous management 94.7% of the time versus an 81.3% success rate for CRSP. Thus, it appears that the Morningstar manager name variable has the double advantages of being better known to investors and better representative of what mutual funds disclose to investors within their SEC filings.

References

Aaker, J., 1997. Dimensions of brand personality. Journal of Marketing Research 34, 347–357.

Almazan, A., Brown, K., Carlson, M, Chapman, D., 2004. Why constrain your mutual fund manager? Journal of Financial Economics 93, 289–321.

Baer, M., Kempf, A., Ruenzi, S., 2005. Team management and mutual funds. Unpublished working paper. University of Cologne.

Baker, G., Hubbard, T., 2003. Make versus buy in trucking: Asset ownership, job design and information. American Economic Review 93, 551–572.

Barber, B., Heath, C., Odean, T., 2003. Good reasons sell: Reason-based choice among individuals and groups in the stock market. Management Science 49, 1636–1652.

Bergstresser, D., Chalmers, J., Tufano, T., 2008. Assessing the costs and benefits of brokers in the mutual fund industry. Review of Financial Studies (forthcoming).

Berk, J., Green, R., 2004. Mutual fund flows and performance in rational markets. Journal of Political Economy 112, 1269–1295.

Bliss, R., Potter, M., Schwarz, C., 2008. Performance characteristics of individual vs. team managed mutual funds. Journal of Portfolio Management 34, 110-119.

Carhart, M., 1997. On persistence in mutual fund performance. Journal of Finance 52, 57–82.

Chen, J., Hong, H., Huang, M., Kubik, J., 2004. Does fund size erode mutual fund performance? The role of liquidity and organization. American Economic Review 94, 1276–1302.

Chevalier, J., Ellison, G., 1999a. Are some mutual fund managers better than others? Cross-sectional patterns in behavior and performance. Journal of Finance 54, 875–899.

Chevalier, J., Ellison, G. 1999b. Career concerns of mutual fund managers. Quarterly Journal of Economics 114, 389–432.

Cooper, M., Gulen, H., Raghavendra Rau, P., 2005. Changing names with style: Mutual fund name changes and their effects on fund flows. Journal of Finance 60, 2825–2858.

Cremers, M., Petajisto, A., 2008. How Active is Your Mutual Fund Manager? Review of Financial Studies (forthcoming).

Del Guercio, D., Tkac, P., 2008. Star power: The effect of Morningstar ratings on mutual fund flow. Journal of Financial and Quantitative Analysis 43, 907–936.

Fama, E., MacBeth, J., 1973, Risk, return, and equilibrium: Empirical tests. Journal of Political Economy 81, 607–636.

Gallaher, S., Kaniel, R., Starks, L., 2007. Madison Avenue meets Wall Street. Unpublished working paper. University of Texas at Austin.

Gaspar, J.-M., Massa, M., Matos, P., 2006. Favoritism in mutual fund families? Evidence of strategic cross-fund subsidization. Journal of Finance 61, 73–104.

Ge, W., Zheng, L., 2006. The frequency of mutual fund portfolio disclosure. Unpublished working paper. University of Michigan.

Getmansky, M., Lo, A., Wei, S., 2004. Sifting through the wreckage: Lessons from recent hedge fund liquidations. Journal of Investment Management 2, 6–38.

Grinblatt, M., Titman, S., 1993. Performance measurement without benchmarks: An examination of mutual fund returns. Journal of Business 66, 47–68.

Grossman, S., Hart, O., 1986. The costs and benefits of ownership. Journal of Political Economy 97, 691–719.

Guedj, I., Papastaikoudi, J., 2005. Can mutual fund families affect the performance of their funds? Unpublished working paper. University of Texas at Austin.

Hart, O., Moore, J., 1990. Property rights and the nature of the firm. Journal of Political Economy 98, 1119–1158.

Holmström, B., 1979. Moral hazard and observability. Bell Journal of Economics 10, 74-91.

Holmström, B., 1999. Managerial incentive problems, a dynamic perspective. Review of Economic Studies 66, 169–182.

Holmström, B., Milgrom, P., 1991. Multitask principal-agent analyses: incentive contracts, asset ownership, and job design. Journal of Law, Economics and Organization 7, 24–52.

Hortascu, A., Syverson, C., 2004. Product differentiation, search costs, and competition in the mutual fund industry: A case study of S&P 500 index funds. Quarterly Journal of Economics 119, 403–456.

Jain, P.C., Shuang Wu, J., 2000. Truth in mutual fund advertising: Evidence on future performance and fund flows. Journal of Finance 55, 937–958.

Joskow, P., 1985. Vertical integration and long-term contracts: The case of coal-burning electric generation plants. Journal of Law, Economics, and Organization 1, 33–80.

Kacperczyk, M., Sialm, C., Zheng, L., 2005. On the industry concentration of actively managed mutual funds. Journal of Finance 60, 1983–2011.

Kacperczyk, M., Sialm, C., Zheng, L., 2008. Unobserved actions of mutual funds. Review of Financial Studies 21, 2379-2416.

Kaniel, R., Starks, L., Vasudevan, V., 2007. Headlines and bottom lines: Media coverage and mutual funds. Unpublished working paper. University of Texas at Austin.

Khorana, A., 2001. Performance changes following top management turnover: Evidence from open-end mutual funds. Journal of Financial and Quantitative Analysis 36, 371–393.

Lakonishok, J., Shleifer, A., Thaler, R., Vishny, R., 1991. Window dressing by pension fund managers. American Economic Review 81, 227-231.

Lynch, A., Musto, D., 2003. How investors interpret past fund returns. Journal of Finance 58, 2033–2058.

Malmendier, U., Tate, G., 2009. Superstar CEOs. Quarterly Journal of Economics (forthcoming).

Monteverde, K., Teece, D., 1982. Supplier switching costs and vertical integration in the automobile industry. Bell Journal of Economics 13, 206–213.

Mullainathan, S., Shleifer, A., 2006. Persuasion in Finance. Unpublished working paper. Harvard University.

Mullainathan, S., Schwartzstein, J., Shleifer, A., 2008, Coarse thinking and persuasion. Quarterly Journal of Economics 123, 577-619.

Nanda, V., Wang, J., Zheng, L., 2004. Family values and the star phenomenon. Review of Financial Studies 17, 667–698.

Pierce, L., 1999. Portability of performance records and the use of related performance information. Journal of Portfolio Management 3, 22–34.

Pollet, J., Wilson, M., 2008, How does size affect mutual fund behavior? Journal of Finance 63, 2941–2969.

Prather, L., Middleton, K., 2002. Are N+1 heads better than one? The case of mutual fund managers. Journal of Economic Behavior and Organization 47, 103–120.

Reuter, J., 2006. Are IPO allocations for sale? Evidence from mutual funds. Journal of Finance 61, 2289–2324.

Reuter, J., Zitzewitz, E., 2006. Do ads influence editors? Advertising and bias in the financial media. Quarterly Journal of Economics 119, 197–227.

Rosen, S., 1981. The economics of superstars. American Economic Review 71, 845–58.

Simester, D., Wernerfeldt, B., 2005. Determinants of asset ownership: A study of the carpentry trade. Review of Economics and Statistics 87, 50–58.

Sirri, E., Tufano, P., 1998. Costly search and mutual fund flows. Journal of Finance 53, 1589–1622.

Terviö, M., 2008. Superstars and mediocrities: Market failure in the discovery of talent. Review of Economic Studies (forthcoming).

Williamson, O., 1979, Transaction-cost economics: The governance of contractual relations. Journal of Law and Economics 22, 223–261.

Zitzewitz, E., 2006. How widespread was late trading in mutual funds? American Economic Review Papers and Proceedings 96, 284–289.

Zitzewitz, E., 2009. An Eliot effect? Prosecutorial discretion in mutual fund settlement negotiations, 2003-7. Unpublished working paper. Dartmouth College.

Table 1. The use of sole-management, co-management, and anonymous management by U.S. mutual funds, 1993-2004

Panel A. Management Classification According to Morningstar

| | | Adjusted Management Classification | | | | | Adjusted Management Classification | | |
	All Funds	Sole	Co-managed	Anonymous	New Funds	Sole	Co-managed	Anonymous
1993	2,102	71.0%	25.1%	3.9%	325	73.2%	24.0%	2.7%
1994	2,572	69.7%	26.4%	3.9%	336	61.0%	32.2%	6.8%
1995	2,866	67.9%	27.7%	4.4%	197	64.5%	31.0%	4.5%
1996	3,094	62.5%	32.1%	5.4%	188	65.4%	28.9%	5.7%
1997	3,345	57.8%	34.6%	7.6%	312	51.9%	33.3%	14.7%
1998	3,827	52.3%	37.0%	10.7%	140	42.1%	41.4%	16.4%
1999	4,082	49.8%	38.2%	12.0%	51	66.7%	17.6%	15.7%
2000	4,300	47.2%	39.7%	13.1%	105	55.2%	21.9%	22.9%
2001	4,423	45.4%	38.2%	16.4%	76	40.8%	38.2%	21.1%
2002	4,388	43.6%	45.3%	11.1%	38	52.6%	31.6%	15.8%
2003	4,726	41.6%	42.0%	16.5%	136	46.3%	26.5%	27.2%
2004	4,937	40.6%	41.1%	18.3%	148	37.8%	31.8%	30.4%

Panel B. Management Classification According to CRSP

| | | Adjusted Management Classification | | | | | Adjusted Management Classification | | |
	All Funds	Sole	Co-managed	Anonymous	New Funds	Sole	Co-managed	Anonymous
1993	2,783	79.2%	13.7%	7.1%	408	81.6%	13.7%	4.7%
1994	3,223	76.4%	16.6%	7.0%	406	71.6%	18.6%	9.7%
1995	3,555	74.3%	18.8%	6.9%	317	72.7%	21.3%	6.0%
1996	3,690	68.0%	24.3%	7.7%	261	71.9%	18.6%	9.5%
1997	4,266	62.3%	29.6%	8.1%	471	60.5%	31.5%	8.0%
1998	4,518	59.5%	29.6%	11.0%	233	50.2%	31.3%	18.5%
1999	4,590	53.7%	29.0%	17.3%	76	51.5%	32.1%	16.4%
2000	4,977	49.3%	28.2%	22.4%	135	52.6%	19.3%	28.1%
2001	5,102	46.3%	28.3%	25.4%	94	42.6%	33.0%	24.5%
2002	4,993	43.0%	27.8%	29.2%	60	61.7%	18.3%	20.0%
2003	5,580	40.5%	28.3%	31.2%	175	46.3%	27.4%	26.3%
2004	5,779	39.1%	29.9%	31.0%	331	28.7%	44.1%	27.2%

Notes: This table reports the percentage of both existing and newly started mutual funds that are classified as reporting one manager name (sole-managed), reporting two or more manager names (co-managed), or reporting no manager names (anonymously managed). We define the newly started funds in year *t* as those for which CRSP lists the year organized as *t*. Since the Morningstar classification likely better reflects the information available to investors, we use the actual values reported by Morningstar in most of our analysis (see Table A1). However, to better highlight the rise of anonymously managed funds, the numbers and percentages in this table are adjusted for time-series changes in the rules that CRSP and Morningstar use to classify a mutual fund's management structure. For the purposes of this table only, in 1993-1996, when Morningstar identified any fund with more than two named managers as anonymous managed, we use the distribution of transitions in management type between 1996-1997 to impute management type in 1993-1996. From 1993-1999, CRSP's manager name variable occasionally reports a firm name rather than a manager name. In this table, we use the distribution of transitions from firm names to sole management, co-management, and anonymous management to adjust the aggregate CRSP statistics.

Table 2. Determinants of anonymous management versus co-management, 1994-2004

Panel A. Levels

Dependent Variable:	Co-managed (t)			Anonymously managed (t)		
	(1)	(2)	(3)	(4)	(5)	(6)
Index Fund (t-12)	-0.204 ***	-0.201 ***	-0.212 ***	0.072 *	0.055	0.262 ***
	(0.037)	(0.038)	(0.048)	(0.047)	(0.047)	(0.115)
No Load (t-12)	0.025	0.023	0.041	0.013	0.008	0.003
	(0.024)	(0.024)	(0.034)	(0.019)	(0.019)	(0.025)
Expense ratio (t-12)	-0.006	-0.019	0.050 **	-0.063 ***	-0.077 ***	-0.030
	(0.018)	(0.021)	(0.023)	(0.019)	(0.022)	(0.026)
12b-1 fee (t-12)	0.073	0.066	0.021	0.027	0.035	0.034
	(0.073)	(0.070)	(0.059)	(0.034)	(0.036)	(0.056)
Ln Fund TNA (t-1)	0.016 ***	0.017 ***	0.016 **	-0.002	-0.003	-0.006
	(0.006)	(0.006)	(0.007)	(0.003)	(0.003)	(0.005)
Ln Family TNA (t-1)	0.003	0.002		-0.008 *	-0.009 *	
	(0.014)	(0.013)	(0.000)	(0.004)	(0.004)	(0.000)
Turnover (t-12)	-0.000 ***	-0.000 ***	-0.000	0.000	0.000 **	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Fund age (t)	0.000	0.001	0.002 **	-0.002 **	-0.002 **	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Net flow (t-12 to t-1)	-0.000	0.000	-0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Net return (t-12 to t-1)	-0.000	-0.000	-0.001 **	-0.000	-0.001 ***	-0.001 ***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Std dev net return (t-12 to t-1)	-0.004	-0.002	-0.006 *	0.001	0.001	0.001
	(0.003)	(0.003)	(0.003)	(0.002)	(0.002)	(0.003)
Fixed effects?	Year	Objective*Year	Family*Year	Year	Objective*Year	Family*Year
Pseudo R2	0.0407	0.0634	0.2015	0.0368	0.0624	0.2450
Sample size	31222	30902	24158	31222	29941	13942

Panel B. Changes

Dependent Variable:	Co-managed (t)			Anonymously managed (t)		
	(7)	(8)	(9)	(10)	(11)	(12)
Anonymously managed (t-12)	0.101 ***	0.096 ***	0.134 ***	0.769 ***	0.785 ***	0.857 ***
	(0.025)	(0.024)	(0.029)	(0.016)	(0.017)	(0.019)
Co-managed (t-12)	0.760 ***	0.769 ***	0.787 ***	0.020 ***	0.018 **	0.027 **
	(0.010)	(0.009)	(0.010)	(0.007)	(0.007)	(0.011)
Fund new to Morningstar database (t)	0.366 ***	0.370 ***	0.353 ***	0.114 ***	0.109 ***	0.229 ***
	(0.025)	(0.026)	(0.040)	(0.021)	(0.020)	(0.058)
Index Fund (t-12)	-0.148 ***	-0.145 ***	-0.164 ***	0.023	0.018	0.106 ***
	(0.025)	(0.027)	(0.034)	(0.018)	(0.018)	(0.051)
No Load (t-12)	0.008	0.006	0.019	0.001	-0.002	-0.001
	(0.015)	(0.015)	(0.021)	(0.008)	(0.008)	(0.017)
Expense ratio (t-12)	-0.007	-0.020	0.014	-0.028 ***	-0.031 ***	-0.022
	(0.012)	(0.014)	(0.016)	(0.008)	(0.008)	(0.014)
12b-1 fee (t-12)	0.042	0.041	0.010	0.001	0.003	0.028
	(0.043)	(0.043)	(0.043)	(0.016)	(0.016)	(0.032)
Ln Fund TNA (t-1)	0.012 ***	0.012 ***	0.011 **	-0.003 *	-0.003 **	-0.004
	(0.003)	(0.004)	(0.005)	(0.002)	(0.002)	(0.003)
Ln Family TNA (t-1)	0.001	0.000		-0.003	-0.003	
	(0.008)	(0.007)	(0.000)	(0.002)	(0.002)	(0.000)
Turnover (t-12)	-0.000 **	-0.000 **	-0.000	0.000	0.000 **	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Fund age (t)	0.000	0.001	0.001 **	-0.001 ***	-0.001 ***	-0.000
	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)
Net flow (t-12 to t-1)	0.000	-0.000	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Net return (t-12 to t-1)	-0.000	0.000	-0.001	-0.000	-0.000 **	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Std dev net return (t-12 to t-1)	-0.002	-0.001	-0.004	0.001	0.002	0.002
	(0.002)	(0.003)	(0.002)	(0.001)	(0.001)	(0.002)
Fixed effects?	Year	Objective*Year	Family*Year	Year	Objective*Year	Family*Year
Pseudo R2	0.4439	0.4604	0.5163	0.4869	0.5090	0.5831
Sample size	31222	30902	24158	31222	29941	13942

Note: This table reports marginal effects estimated via probit. The unit of observation is fund i in January of year t. The dependent variable equals 1 if I 1)". It is the continuously compounded growth in assets minus the continuously compounded net return. "Std dev net return (t-12 to t-1)" is the standard deviation of fund i's net return over the prior twelve months. Standard errors are clustered on mutual fund family. Columns 1, 4, 7, and 9 include a separate fixed effect for each year; columns 2, 5, 8, and 10 include a separate fixed effect for each investment objective each year; columns 3, 6, 9, and 12 include a separate fixed effect for each mutual fund family each year. Significance at the 10-, 5-, 1-percent levels (in a two-sided test) is denoted by *, **, and ***.

Table 3. Determinants of positive 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)	Any Positive Mention (6)
Objective*month combinations with mentions	139	85	199	546	76	798
Observations in those combinations	34,735	9,737	40,261	80,822	11,309	110,133
Anonymously managed (t-12)	-0.118 ***	-0.562 **	-0.067 ***	-0.137 ***	-0.079	-0.249 ***
	(0.020)	(0.204)	(0.022)	(0.039)	(0.106)	(0.050)
Co-managed (t-12)	-0.078 ***	0.076	-0.052 **	-0.037	-0.157 *	-0.111 **
	(0.022)	(0.194)	(0.024)	(0.031)	(0.098)	(0.046)
No Load (t-12)	0.005	1.011 ***	0.169 ***	0.204 ***	0.700 ***	0.554 ***
	(0.025)	(0.319)	(0.065)	(0.058)	(0.240)	(0.095)
Expense Ratio (t-12)	0.023 *	0.183 **	0.027 ***	0.056 ***	0.065	0.099 ***
	(0.012)	(0.078)	(0.010)	(0.016)	(0.063)	(0.030)
12b-1 Fee (t-12)	-0.069	-1.323 ***	-0.235 **	-0.127	-3.142 ***	-0.658 ***
	(0.048)	(0.569)	(0.102)	(0.135)	(0.862)	(0.197)
Ln Fund TNA (t-1)	0.043 ***	1.062 ***	0.094 ***	0.236 ***	0.267 ***	0.390 ***
	(0.011)	(0.191)	(0.018)	(0.022)	(0.088)	(0.031)
Ln Family TNA (t-1)	-0.031 ***	-0.326 ***	-0.037 ***	-0.064 ***	-0.083 **	-0.118 ***
	(0.009)	(0.073)	(0.010)	(0.018)	(0.044)	(0.025)
Turnover (t-12)	-0.000	-0.001	-0.000	-0.000 *	-0.001	-0.000 **
	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Fund age (t)	-0.001	-0.011	0.001	0.000	0.003	-0.000
	(0.001)	(0.009)	(0.002)	(0.001)	(0.003)	(0.002)
Net flow (t-12 to t-1)	0.001 ***	0.004 ***	0.001 ***	0.002 ***	0.004 ***	0.003 ***
	(0.000)	(0.002)	(0.000)	(0.000)	(0.001)	(0.000)
Net return (t-12 to t-1)	0.007 ***	-0.002	0.003 ***	0.007 ***	0.002	0.010 ***
	(0.001)	(0.003)	(0.001)	(0.001)	(0.003)	(0.001)
Std dev net return (t-12 to t-1)	-0.003	-0.076	0.004	0.023 ***	0.003	0.013
	(0.006)	(0.050)	(0.004)	(0.008)	(0.025)	(0.010)
Prior-year morningstar rating: 1 star	-0.219 **	-1.694 **	-0.248 **	-0.072	1.227 **	-0.260 **
	(0.091)	(0.657)	(0.120)	(0.092)	(0.442)	(0.126)
Prior-year morningstar rating: 2 stars	-0.030	-0.868 ***	-0.120 **	-0.079	1.442 ***	-0.131
	(0.062)	(0.340)	(0.052)	(0.075)	(0.429)	(0.090)
Prior-year morningstar rating: 3 stars	0.095 **	-0.393 *	-0.119 ***	-0.072	2.106 ***	0.088
	(0.043)	(0.244)	(0.043)	(0.067)	(0.497)	(0.075)
Prior-year morningstar rating: 4 stars	0.169 ***	0.177	0.018	0.125 **	2.511 ***	0.455 ***
	(0.048)	(0.270)	(0.032)	(0.060)	(0.573)	(0.082)
Prior-year morningstar rating: 5 stars	0.220 ***	0.610 **	0.147 ***	0.378 ***	2.740 ***	0.810 ***
	(0.054)	(0.307)	(0.047)	(0.064)	(0.641)	(0.087)
Family's print advertising dollars (t-12 to t-1)	0.002	-0.043 **	-0.005 ***	-0.006 *	0.021 ***	0.007
	(0.005)	(0.022)	(0.002)	(0.003)	(0.010)	(0.007)
Family's nonprint advertising dollars (t-12 to t-1)	0.002	-0.041 **	-0.004 ***	-0.006	0.016	-0.005
	(0.004)	(0.021)	(0.002)	(0.004)	(0.013)	(0.006)

	(1)	(2)	(3)	(4)	(5)	(6)
Own-publication advertising dollars (t-12 to t-1)	-0.049	0.453 ***	0.147 ***	0.275 ***		
	(0.038)	(0.123)	(0.054)	(0.183)		
Ho: Anonymous = Co-managed	0.034 **	0.004 ***	0.282	0.034 **	0.500	0.008 ***
Objective*month fixed effects?	Yes	Yes	Yes	Yes	Yes	Yes
Clustering	Family	Family	Family	Family	Family	Family
Pseudo R2	0.182	0.342	0.298	0.260	0.360	0.290
Observed probability (times 100)	0.443	4.591	0.939	1.341	5.474	2.370
Predicted probability (times 100, at x-bar)	0.119	0.667	0.096	0.252	0.364	0.423

Note: Each column reports marginal effects from a probit regression estimated for positive media mentions in a single publication or, in column (6), for a positive media mention in any of the five publications. We include a separate fixed effect for each investment objective each month. "Anonymously managed (t-12)" is a dummy variable that equals one if Morningstar lists fund i as being managed by 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. (Sole-managed funds are the omitted category.) 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 Return (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 Flow (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. "Std dev net return (t-12 to t-1)" is the standard deviation of fund i's net return over the prior twelve months. 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. Significance at the 10-percent, 5-percent, and 1-percent levels (in a two-sided test) is denoted by *, **, and ***.

Table 4. Determinants of monthly net flows

Sample Period:	1994-2004			1997-2002			1997-2002		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Anonymously managed (t-12)	-0.167 **	-0.238 **	-0.269 *	-0.237 **	-0.410 ***	-0.407 **	-0.194 **	-0.351 ***	-0.330 *
	(0.073)	(0.108)	(0.151)	(0.096)	(0.135)	(0.189)	(0.095)	(0.135)	(0.184)
Co-managed (t-12)	-0.027	-0.083	-0.134	-0.030	-0.093	-0.118	-0.016	-0.072	-0.081
	(0.042)	(0.061)	(0.083)	(0.051)	(0.070)	(0.095)	(0.048)	(0.067)	(0.088)
Anonymously managed (t-12) x Load (t-12)		0.136	0.118		0.358 *	0.320		0.323 *	0.286
		(0.133)	(0.187)		(0.188)	(0.249)		(0.189)	(0.242)
Co-managed (t-12) x Load (t-12)		0.097	0.161		0.115	0.171		0.103	0.131
		(0.077)	(0.109)		(0.087)	(0.125)		(0.086)	(0.117)
Load (t-12)	0.010	-0.039	-0.096	0.106	0.021	-0.012	0.212 ***	0.134 *	0.152
	(0.058)	(0.062)	(0.085)	(0.066)	(0.070)	(0.098)	(0.072)	(0.074)	(0.100)
Expense ratio (t-12)	0.043	0.041	0.135 *	-0.014	-0.018	0.050	-0.001	-0.005	0.077 **
	(0.072)	(0.073)	(0.077)	(0.036)	(0.037)	(0.040)	(0.035)	(0.035)	(0.038)
12b-1 Fee (t-12)	-0.072	-0.074	-0.087	-0.046	-0.037	0.053	0.042	0.049	0.136
	(0.138)	(0.138)	(0.195)	(0.135)	(0.134)	(0.215)	(0.137)	(0.135)	(0.200)
Ln Fund TNA (t-1)	-0.170 ***	-0.171 ***	-0.056 *	-0.167 ***	-0.168 ***	-0.047	-0.239 ***	-0.239 ***	-0.155 ***
	(0.022)	(0.022)	(0.032)	(0.024)	(0.024)	(0.036)	(0.027)	(0.027)	(0.037)
Ln Family TNA (t-1)	0.100 ***	0.100 ***	0.091 ***	0.092 ***	0.092 ***	0.077 ***	0.101 ***	0.101 ***	0.086 ***
	(0.017)	(0.017)	(0.023)	(0.018)	(0.018)	(0.026)	(0.018)	(0.018)	(0.024)
Turnover (t-12)	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Fund age (t)	-0.005 ***	-0.005 ***	-0.024 ***	-0.004 **	-0.004 **	-0.023 ***	0.002	0.002	-0.008 ***
	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.003)	(0.001)	(0.001)	(0.002)
Net flows (t-12 to t-1)	0.030 ***	0.030 ***		0.030 ***	0.030 ***		0.028 ***	0.028 ***	
	(0.002)	(0.002)		(0.002)	(0.002)		(0.002)	(0.002)	
Net return (t-12 to t-1)	0.064 ***	0.064 ***	0.087 ***	0.058 ***	0.058 ***	0.079 ***	0.055 ***	0.055 ***	0.071 ***
	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)	(0.004)
Std dev net return (t-12 to t-1)	0.011	0.011	0.062 ***	0.000	-0.000	0.056 ***	-0.004	-0.005	0.038 **
	(0.016)	(0.016)	(0.019)	(0.016)	(0.016)	(0.018)	(0.016)	(0.016)	(0.018)
Ho: Anonymous = Co-managed (All Funds)	0.046 **			0.023 **			0.054 **		
Ho: Anonymous = Co-managed (No-Load)		0.111	0.337		0.009 ***	0.101		0.025 **	0.154
Ho: Anonymous = Co-managed (Load)		0.202	0.165		0.589	0.425		0.677	0.585
Objective*Month fixed effects?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
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
Clustering	Family	Family	Family	Family	Family	Family	Family	Family	Family
R-squared	0.1222	0.1222	0.0923	0.1199	0.12	0.0912	0.1226	0.1227	0.1
Sample size	379,621	379,621	379,621	225,727	225,727	225,727	225,727	225,727	225,727

Note: In this table, we estimate the determinants of monthly net flows in a panel regression with a separate fixed effect for each investment objective each month. 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. We limit the sample to the 99.84% of fund-month observations with continuously compounded inflows between -100 percent and +100 percent. The independent variables are defined in the notes to Table 2. Columns (4) through (6) restrict the sample to 1997-2002, when we possess data on both lagged Morningstar ratings and lagged media mentions. Columns (7) through (9) extend columns (4) through (6) but 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. Standard errors are clustered on mutual fund family. Significance at the 10-percent, 5-percent, and 1-percent levels (in a two-sided test) is denoted by *, **, and ***.

Table 5. Anonymous management, fund returns, and fund characteristics

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)
Anonymously managed (t-12)	-0.007	-0.034	-0.030	-0.170 ***	-12.064 ***
	(0.030)	(0.031)	(0.026)	(0.044)	(4.661)
Co-managed (t-12)	-0.008	-0.015	-0.024	-0.028	-6.292
	(0.018)	(0.018)	(0.019)	(0.040)	(4.177)
No Load (t-12)	0.037 *	0.036 *	0.034 *	-0.348 ***	9.306 *
	(0.021)	(0.021)	(0.018)	(0.062)	(5.156)
Expense ratio (t-12)	-0.010	-0.056	-0.047		7.343
	(0.052)	(0.060)	(0.053)		(7.189)
12b-1 fee (t-12)	-0.004	-0.007	-0.018		1.127
	(0.073)	(0.077)	(0.071)		(13.781)
Ln Fund TNA (t-1)	-0.033 ***	-0.023 **	-0.013	-0.121 ***	-7.453 ***
	(0.009)	(0.009)	(0.009)	(0.040)	(1.362)
Ln Family TNA (t-1)	0.021 **	0.011	0.006	-0.076 ***	3.717 **
	(0.008)	(0.009)	(0.007)	(0.017)	(1.590)
Turnover (t-12)	0.000	-0.000	-0.000	0.000 **	
	(0.000)	(0.000)	(0.000)	(0.000)	
Fund age (t)	0.000	-0.000	-0.001	0.005	0.112
	(0.001)	(0.001)	(0.001)	(0.005)	(0.137)
Net flow (t-12 to t-1)	-0.001	-0.001	0.000	0.001	-0.078 **
	(0.001)	(0.001)	(0.001)	(0.000)	(0.037)
Lagged return measure (t-12 to t-1)	0.021	0.016	0.015 *	-0.006	-0.130
	(0.019)	(0.018)	(0.008)	(0.004)	(0.131)
Std dev net return (t-12 to t-1)	-0.107	-0.089	-0.055	0.075 ***	5.295 ***
	(0.116)	(0.077)	(0.057)	(0.029)	(1.032)
Ho: Anonymous = Co-managed	0.983	0.542	0.805	0.000 ***	0.206
Objective*Month Fixed Effects?	Yes	Yes	Yes	--	--
Objective*Year Fixed Effects?	--	--	--	Yes	Yes
Clustering	Month	Month	Month	Family	Family
Sample size	126898	126898	126898	10489	10489

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)
Anonymously managed (t-12)	0.013	0.051 *	-0.035 *	-0.056 **	45.563 *
	(0.034)	(0.030)	(0.020)	(0.028)	(23.620)
Co-managed (t-12)	0.008	0.009	-0.001	-0.006	0.932
	(0.023)	(0.023)	(0.012)	(0.016)	(8.775)
Ho: Anonymous = Co-managed	0.882	0.219	0.063 *	0.071 **	0.056 *
Control variables from Panel A?	Yes	Yes	Yes	Yes	Yes
Objective*Month Fixed Effects?	Yes	Yes	Yes	Yes	--
Objective*Year Fixed Effects?	--	--	--	--	Yes
Family*Month Fixed Effects?	--	--	--	Yes	--
Clustering	Month	Month	Month	Month	Family
Sample size	96029	96029	96029	96029	6926

Note: In this table, we estimate the determinants of monthly returns and fund characteristics in a panel regression with a separate fixed effect for each investment objective each month. 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 return 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 focused on monthly returns include S&P investment objective-by-month fixed effects. Specifications (4), (5), and (10) include objective-by-year fixed effects. Specification (9) also includes mutual fund family fixed effects. Standard errors cluster on year-month or year, as appropriate. Significance at the 10-, 5-, and 1-percent levels (in a two-sided test) is denoted by *, **, and ***.

Table 6. Anonymous management, return dilution due to stale price arbitrage and late trading, and IPO allocations

	International Equity, 1998-2003			Non-Specialized Domestic Equity, 1994-2002			
Sample:							
Dependent Variable:				Any IPOs Dummy?	IPOs as Fraction of TNA	Hot IPOs Dummy?	Underpricing as Fraction of Fund TNA
Sample Frequency:	Returns monthly	Dilution monthly	Dilution monthly	quarterly	quarterly	quarterly	quarterly
Estimation:	OLS	OLS	OLS	Probit	Tobit	Probit	OLS
Report:	coefficients	coefficients	coefficients	marginal effects	coefficients	marginal effects	coefficients
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Anonymously managed (t-12)	-0.095	-0.027 ***	-0.061 **	-0.018 ***	-8.137 ***	-0.026 ***	-45.146 **
	(0.089)	(0.009)	(0.024)	(0.006)	(2.309)	(0.008)	(17.484)
Co-managed (t-12)	-0.110	-0.012 *	-0.028 *	-0.010 ***	-2.036	-0.017 ***	-13.853
	(0.086)	(0.007)	(0.014)	(0.005)	(1.532)	(0.006)	(15.236)
Ho: Anonymous = Co-managed	0.850	0.117	0.050 **	0.09 *	0.01 ***	0.09 *	0.02 **
Control variables from Table 5?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Objective*Month fixed effects?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Family*Month fixed effects?	--	--	Yes	--	--	--	--
Clustering	Month	Month	Month	Quarter	Quarter	Quarter	Quarter
Sample size	6336	6336	6336	37138	45139	30331	44474

Note: This table explores two potential explanations for the lower return gaps of anonymously 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, and includes S&P investment objective-by-month fixed effects, as well as the full set of control variables from Table 5; column 3 includes mutual fund family fixed effects as well. In the remaining four specifications, we focus on IPO allocations to anonymously managed funds. Our sample is restricted to non-specialty domestic equity funds between 1994 and 2002. Following Reuter (2006) and Gaspar, Matos, and Massa (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 occured during the past quarter. We estimate the specifications in column 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 column 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 date. Significance at the 10-, 5-, and 1-percent levels (in a two-sided test) is denoted by *, **, and ***.

Table 7. Monthly net flows and manager turnover

Sample Period:	1994-2004		
	(1)	(2)	(3)
Anonymously managed (t-12)	0.055	0.036	0.051
	(0.132)	(0.130)	(0.167)
Co-managed (t-12)	0.018	0.008	-0.002
	(0.065)	(0.066)	(0.084)
Return rank (t-12 to t-1)	2.249 ***	0.920 ***	0.903 ***
	(0.132)	(0.240)	(0.284)
Return rank squared (t-12 to t-1)		1.111 ***	1.578 ***
		(0.233)	(0.281)
Return rank * Anonymously managed (t-12)	-0.448 **	-0.397 *	-0.521 **
	(0.218)	(0.215)	(0.257)
Return rank * Co-managed (t-12)	-0.078	-0.060	-0.068
	(0.118)	(0.118)	(0.149)
Named manager turnover dummy (t-12 to t-1)	0.171	0.134	-0.058
	(0.110)	(0.111)	(0.123)
Return rank * Named manager turnover	-0.684 ***	-0.609 **	-0.543 **
	(0.244)	(0.247)	(0.260)
No Load (t-12)	-0.049	-0.059	-0.037
	(0.056)	(0.056)	(0.079)
Expense Ratio (t-12)	0.054	0.037	0.123 *
	(0.064)	(0.062)	(0.066)
12b-1 Fee (t-12)	0.013	0.010	0.014
	(0.129)	(0.129)	(0.185)
Ln Fund TNA (t-1)	-0.185 ***	-0.189 ***	-0.085 ***
	(0.022)	(0.022)	(0.031)
Ln Family TNA (t-1)	0.100 ***	0.106 ***	0.100 ***
	(0.016)	(0.017)	(0.022)
Turnover (t-12)	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)
Fund age (t)	-0.004 ***	-0.004 ***	-0.022 ***
	(0.001)	(0.001)	(0.002)
Net flows (t-12 to t-1)	0.029 ***	0.029 ***	
	(0.002)	(0.002)	
Net return (t-12 to t-1)	0.024 ***	0.030 ***	0.044 ***
	(0.004)	(0.003)	(0.004)
Net return squared (t-12 to t-1)		0.000 ***	0.000 ***
		(0.000)	(0.000)
Std dev net return (t-12 to t-1)	-0.013	-0.104 ***	-0.087 ***
	(0.016)	(0.016)	(0.019)
Ho: Anonymous = Sole-managed	0.018 **	0.023 **	0.031 **
Ho: Anonymous = Co-managed	0.030 **	0.041 **	0.073 *
Ho: Co-managed = Sole-managed	0.611	0.576	0.533
Objective*month fixed effects?	Yes	Yes	Yes
Clustering	Family	Family	Family
R-squared	0.1090	0.1106	0.0833
Sample size	379,621	379,621	379,621

Note: In this table, we extend the analysis of monthly net flows in columns 1, 2, and 3 of Table 4. Return rank ranges from 0, when fund i has the lowest net return within its investment objective between t-12 to t-1, to 1, when it has the highest net return. The named manager turnover dummy equals one if one or more named managers departs the fund or the fund switches from named management to anonymous management. The hypothesis tests are conducted assuming a return rank of 0.5. Standard errors are clustered on mutual fund family. Significance at the 10-, 5-, and 1-percent levels (in a two-sided test) is denoted by *, **, and ***.

Table 8. Sizes of global hedge fund and U.S. mutual fund industries, 1994-2004

Year	TNA ($billions)	Share by broad category			
		Debt	Domestic equity	International	Other

Panel A. Global hedge fund industry

Year	TNA	Debt	Domestic equity	International	Other
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%

Panel B. U.S. mutual fund industry

Year	TNA	Debt	Domestic equity	International	Other
1994	1124	25%	62%	13%	
1995	1490	21%	67%	12%	
1996	1866	18%	69%	13%	
1997	2414	16%	72%	12%	
1998	2899	15%	74%	11%	
1999	3610	12%	75%	13%	
2000	3473	12%	75%	13%	
2001	3097	15%	73%	12%	
2002	2646	20%	69%	11%	
2003	3496	17%	71%	12%	
2004	4097	15%	71%	14%	

| Correlation (HF,MF) | 0.77 | -0.18 | 0.66 | 0.11 | |

Note: Hedge fund asset totals by investment category are from the TASS database, as reported by Getmansky, Lo, and Wei (2004). U.S. mutual fund asset totals are calculated using data from the CRSP mutual fund database, excluding munciple bond funds. For hedge funds, Debt includes fixed income arbitrage and convertible arbitrage funds; Domestic equity includes long-short equity, equity market-neutral, event-driven, and short funds; International includes emerging markets and global macro funds; and Other includes managed futures, multi-strategy, and funds of funds. For mutual funds, Debt includes corporate and government bond funds (but not municiple bond funds); Domestic equity includes all U.S. growth funds, balanced funds, and sector funds; and International includes all global and international equity and bond funds. At the bottom of each column, we report the Pearson correlation coefficient between the hedge fund and mutual fund data series.

Table 9. The Growth of Hedge Funds and the Anonymous Team Management of Mutual Funds

Specification: Sample period:	Levels 1994-2004 (1)	Changes 1994-2004 (2)	Levels 1996-2002 (3)	Changes 1996-2002 (4)	Levels 1996-2002 (5)	Changes 1996-2002 (6)
Ln Hedge Fund AUM in Same Broad Asset Class (t-12)	0.012 ** (0.006)	0.023 *** (0.009)				
Ln Mutual Fund TNA in Same Broad Asset Class (t-12)	-0.008 (0.010)	-0.039 (0.027)				
Ln Hedge Fund AUM in Same State (t-12)			0.009 ** (0.004)	0.007 ** (0.003)		
Ln Mutual Fund TNA in Same State (t-12)			0.005 (0.004)	0.000 (0.004)		
Boston HQ (t)					-0.335 ** (0.132)	-0.286 *** (0.135)
Boston HQ * Ln Hedge Fund Industry AUM (t-12)					0.087 ** (0.040)	0.066 *** (0.025)
NYC HQ (t)					-0.306 * (0.161)	-0.270 ** (0.157)
NYC HQ * Ln Hedge Fund Industry AUM (t-12)					0.051 * (0.032)	0.040 ** (0.018)
Anonymously managed (t-12)		0.843 *** (0.015)		0.607 *** (0.022)		0.611 *** (0.023)
Co-managed (t-12)		0.017 (0.011)		0.009 (0.007)		0.009 (0.007)
Fund new to Morningstar database (t)		0.241 *** (0.049)		0.093 *** (0.044)		0.092 *** (0.043)
Index Fund (t-12)	0.226 *** (0.042)	0.094 *** (0.020)	0.118 ** (0.075)	0.059 * (0.041)	0.114 * (0.075)	0.054 * (0.039)
No Load (t-12)	-0.014 (0.019)	-0.009 (0.010)	-0.016 (0.019)	-0.013 (0.012)	-0.013 (0.020)	-0.011 (0.012)
Expense ratio (t-12)	0.075 *** (0.022)	0.043 *** (0.011)	0.032 * (0.017)	0.019 ** (0.010)	0.030 * (0.017)	0.018 * (0.010)
12b-1 fee (t-12)	0.067 ** (0.032)	0.045 ** (0.021)	0.002 (0.032)	-0.002 (0.017)	0.003 (0.031)	-0.002 (0.016)
Ln Fund TNA (t-1)	-0.008 * (0.004)	-0.005 ** (0.003)	-0.008 *** (0.003)	-0.004 ** (0.002)	-0.008 ** (0.003)	-0.004 ** (0.002)
Ln Family TNA (t-1)			-0.008 *** (0.003)	-0.010 ** (0.004)	-0.005 (0.004)	-0.008 ** (0.004)
Turnover (t-12)	0.000 ** (0.000)	0.000 *** (0.000)	0.000 ** (0.000)	0.000 *** (0.000)	0.000 ** (0.000)	0.000 *** (0.000)
Fund age (t)	-0.001 ** (0.001)	-0.000 (0.000)	-0.001 *** (0.000)	-0.000 (0.000)	-0.001 *** (0.000)	-0.000 (0.000)
Net flow (t-12 to t-1)	0.000 (0.000)	0.000 * (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)

	(1)	(2)	(3)	(4)	(5)	(6)
Net return (t-12 to t-1)	-0.000 **	-0.000	-0.001 ***	-0.001 ***	-0.001 ***	-0.001 ***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Std dev net return (t-12 to t-1)	0.000	0.002	-0.000	0.001	0.000	0.001
	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.001)
Fixed effects	Family*Year, S&P Objective	Family*Year, S&P Objective	Objective*Year, Family	Objective*Year, Family	Objective*Year	Objective*Year
Clustering	S&P Objective	S&P Objective	State	State	State	State
Pseudo R2	0.2767	0.5926	0.3437	0.5653	0.3413	0.5658
Sample size	11922	11922	13795	13795	13795	13795

Note: This table reports marginal effects estimated via probit, with the goal of testing whether the use of anonymous team management is correlated with growth in the hedge fund industry. The unit of observation is fund i in January of each year. The dependent variable equals 1 if Morningstar lists fund i as anonymously managed in the same calendar year. All independent variables except fund age are measured during the prior calendar year. 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. All hedge fund assets are measured in billions of dollar. While the set of fixed effects vary across specifications, all specifications include a full set of year fixed effects. In columns 1-2, standard errors are clustered on S&P investment objective as reported by CRSP; in columns 3-6, standard errors are clustered on state. Significance at the 10-, 5-, and 1-percent levels (in a two-sided test) is denoted by *, **, and ***.

Table A1. The decline of sole managed mutual funds and the rise of anonymous team managed mutual funds, 1993-2004

Panel A. Management Classification According to Morningstar

| | As reported in Morningstar manager name variable | | | | | | Adjusted for Changing Definitions | | |
	1 Manager	2 Managers	3 Managers	4+ Managers	Anonymous	Firm Name	Sole	Co-managed	Anonymous
1993	71.0%	16.7%	0.0%	0.0%	12.2%	0.0%	71.0%	25.1%	3.9%
1994	69.7%	18.2%	0.0%	0.0%	12.2%	0.0%	69.7%	26.4%	3.9%
1995	67.9%	18.4%	0.0%	0.0%	13.7%	0.0%	67.9%	27.7%	4.4%
1996	62.5%	20.5%	0.0%	0.0%	17.0%	0.0%	62.5%	32.1%	5.4%
1997	57.8%	22.0%	8.2%	4.5%	7.6%	0.0%	57.8%	34.6%	7.6%
1998	52.3%	23.2%	8.8%	5.0%	10.7%	0.0%	52.3%	37.0%	10.7%
1999	49.8%	22.8%	9.2%	6.2%	12.0%	0.0%	49.8%	38.2%	12.0%
2000	47.2%	24.0%	9.2%	6.5%	13.1%	0.0%	47.2%	39.7%	13.1%
2001	45.4%	22.3%	9.6%	6.2%	16.4%	0.0%	45.4%	38.2%	16.4%
2002	43.6%	25.5%	10.9%	8.8%	11.1%	0.0%	43.6%	45.3%	11.1%
2003	41.6%	24.6%	9.8%	7.5%	16.5%	0.0%	41.6%	42.0%	16.5%
2004	40.6%	23.5%	9.7%	7.8%	18.3%	0.0%	40.6%	41.1%	18.3%

Panel B. Management Classification According to CRSP

| | As reported in CRSP manager name variable | | | | | | Adjusted for Changing Definitions | | |
	1 Manager	2 Managers	3 Managers	4+ Managers	Anonymous	Firm Name	Sole	Co-managed	Anonymous
1993	74.5%	10.1%	1.8%	0.2%	5.2%	8.3%	79.2%	13.7%	7.1%
1994	73.2%	12.4%	2.5%	0.6%	5.7%	5.6%	76.4%	16.6%	7.0%
1995	71.3%	13.8%	3.2%	0.8%	5.7%	5.2%	74.3%	18.8%	6.9%
1996	65.8%	17.0%	5.7%	0.8%	6.8%	3.9%	68.0%	24.3%	7.7%
1997	60.9%	20.3%	7.0%	1.8%	7.6%	2.4%	62.3%	29.6%	8.1%
1998	58.3%	20.8%	6.8%	1.5%	10.5%	2.1%	59.5%	29.6%	11.0%
1999	53.2%	19.8%	7.9%	1.1%	17.1%	0.9%	53.7%	29.0%	17.3%
2000	49.3%	20.2%	7.2%	0.9%	22.4%	0.1%	49.3%	28.2%	22.4%
2001	46.3%	20.7%	6.9%	0.7%	25.4%	0.1%	46.3%	28.3%	25.4%
2002	42.9%	21.2%	6.1%	0.4%	29.2%	0.1%	43.0%	27.8%	29.2%
2003	40.4%	20.8%	6.4%	1.1%	31.2%	0.1%	40.5%	28.3%	31.2%
2004	39.0%	21.2%	6.5%	2.2%	31.0%	0.1%	39.1%	29.9%	31.0%

Notes: This table reports the percentage of mutual funds classified as reporting one manager name (sole managed), reporting two or more manager names (co-managed), or reporting no manager names (anonymously managed). The fractions in the first six columns reflect the actual Morningstar and CRSP manager name variables. The fractions in the last three columns are adjusted for time-series changes in the rules that Morningstar and CRSP use to classify a mutual fund's management structure. In 1993-1996, Morningstar identified any fund with more than two named managers as anonymous team managed. Therefore, we use the distribution of transitions in management type between 1996-1997 to impute management type in 1993-1996. (Beginning in 2002, Morningstar appears to have become more likely to list 5 or more manager names, but we do not adjust for this change.) In 1993-1999, the CRSP manager name variable occasionally reports a firm name rather than a manager name. We use the distribution of transitions from firm names to sole managed, co-managed, and anonymous team management to adjust the aggregate CRSP statistics.

Table A2. Comparing Morningstar and CRSP classifications to Mutual Fund Filings for Random Sample of Domestic Equity Funds in 2002

Morningstar Classification	CRSP Classification	Random Sample of Domestic Equity Funds	Number of Filings that Do Not Disclose Manager Names	Actual Percentage Anonymous	Number of Domestic Equity Funds in 2002	Random Sample as Percentage Population	Implied Morningstar Accuracy	Implied CRSP Accuracy
Named	Named	20	0	0.0%	1,316	1.5%	100.0%	100.0%
Named	Anonymous	45	8	17.8%	375	12.0%	82.2%	17.8%
Anonymous	Named	20	12	60.0%	42	47.6%	60.0%	40.0%
Anonymous	Anonymous	45	40	88.9%	135	33.3%	88.9%	88.9%
		130			1,868		94.7%	81.3%

Note: To determine whether Morningstar or CRSP provides the more accurate information on management structure, we hand-collected data on management structure for a sample of domestic equity funds in 2002. Funds were put into four bins based on whether CRSP or Morningstar classified the funds as being anonymously managed. For the funds chosen at random within each bin, data on the actual management structure were hand-collected from Prospectuses and Statements of Additional Information available on SEC's EDGAR database. In all but one case, we were able to locate manager names or a phrase like "The Adviser manages the Funds by an investment team approach" followed by no names. In the one case where we were not able to locate any explicit discussion of how the fund was managed, we followed both CRSP and Morningstar and classified the fund as anonymously managed.