

**Changing names with style: Mutual fund name changes and their effects on fund flows**

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### Abstract

We examine whether mutual funds change their names to take advantage of current hot investment styles, and what effects these name changes have on inflows to the funds, and to the funds' subsequent returns. We find that the year after a fund changes its name to reflect a current hot style, the fund experiences an average cumulative abnormal flow of 28 percent, with no improvement in performance. The increase in flows is similar across funds whose holdings match the style implied by their new name and those whose holdings do not, suggesting that investors are “irrationally” influenced by cosmetic effects.

Mutual funds offer a unique opportunity to study the behavior of individual investors via the examination of mutual fund flow data. This is important, since investors' asset allocation decisions across mutual funds may ultimately affect asset returns. For example, Goetzmann, Massa and Rouwenhorst (2002) document that factors extracted from the covariance matrix of mutual fund flows provide incremental information beyond broad-based asset class returns in explaining returns in the cross-section.

In this paper, we provide striking new evidence of seemingly irrational behavior by mutual fund investors when allocating assets across mutual funds. We also provide evidence of timing behavior on the part of fund managers who appear to take advantage of the sub-optimal behavior of investors. Specifically, we analyze fund flow patterns around conditional name changes in the mutual fund industry. We define conditional name changes as name changes by mutual funds towards a particular style name when the corresponding style premium is up, or away from a particular style name when the corresponding style premium is down. We examine what effects these name changes have on the flows in and out of the funds, and the funds' subsequent returns. To summarize our results, we find that flows to funds increase dramatically when funds change their names to look more (less) like the current positive (negative) return styles. This relationship holds even for the funds (which comprise a majority of the funds in our sample) whose holdings do not materially reflect the style implied by their new name.

How prevalent are such conditional mutual fund name changes? The *Financial Times* (see Wine and Sullivan, 2001) reports that after the end of the technology bubble in 2000, mutual fund companies changed the names of the funds under their control to reflect a "value" orientation without changing the portfolio managed by the fund. According to the article:

"The portfolios remain much the same, but the names are changing at a rapid rate. Hundreds of US mutual funds have altered their names this year to reflect the more sober mood of the markets – "New Economy" and "Growth" are out, and "Value" is definitely in. "Investment companies are ripping names from the headlines and slapping them on funds that haven't changed a bit," said Russ Kinnel, director of fund analysis at

Morningstar, which tracks the performance of mutual funds. Funds which were last year boasting of their exposure to the high-technology sector are this year reassuring potential investors with names that suggest an ability to find “value” amid the tech wreckage.”

We identify a sample of 296 equity mutual funds that make a style name change over the April 1994 - July 2001 period. Funds are defined as having a style name change if the new name is different from the old name by one of the following style identifiers: “Value”, “Growth”, “Small” or “Large.”

Name changes for these funds appear to be motivated by reductions in fund inflows prior to the name change. Relative to other funds from the universe of mutual funds, the name change funds experience a significantly negative fund flow over the six months before the name change, they charge lower marketing 12b-1 fees, earn lower Fama-French three factor alphas prior to the name change, and tend to be older funds. When funds do change their names, the new name is likely to be either associated with the current “hot” style or away from the current “cold” style. For example, as the value or size premium increases (decreases), funds add (delete) the corresponding style identifier to (from) their names.

To examine the effects of name changes on fund flows, we use an event study framework. To create a control sample of funds used to compute “abnormal flows” to the funds in our sample, we use the relatively new and innovative methodology of “propensity score” matching (Villalonga (2004), Hillion and Vermaelen (2004)). This matching method has the advantage of allowing us to form a control group of funds that are screened along multiple dimensions, not just a few, allowing a cleaner test of the effects of fund name changes on flows

When funds do change their names, they earn significantly positive abnormal fund flows. Abnormal flows are on the order of 20 percent, in the one year after the name-change month, for all of the funds in our sample. To put this into perspective, the average fund in our sample has total net assets of \$299 million in the month before the name change. At the end of the year, the increase in total net assets, *in excess of the value earned by a matching mutual fund*, is over \$60 million. With 296 funds in our sample, the value created by name changes is approximately \$18 billion over the seven-year period in our sample.

The increase in fund flow is entirely concentrated however, on funds that make a “hot” style name change – changing towards (away from) a particular style when the corresponding style premium is up (down). These funds earn cumulative abnormal flows (CAFs) of 27.63 percent in the year after the name-change month, as compared to a statistically insignificant increase for funds that make “cold” style name changes – changing towards (away from) a particular style when the corresponding style premium is down (up).

We test whether there is a difference in flows when the name change is cosmetic in the sense that the fund’s investing style, as reflected by the fund’s new name, does not reflect its portfolio holdings, as opposed to non-cosmetic name changes, where the style implied in the fund’s new name does match the holdings of the fund. We find no difference in abnormal flows across the cosmetic and non-cosmetic name-change types. After controlling for performance, size, age of the fund, and other characteristics, the funds that experience the greatest increase in flows are those that switch toward the current hot style (or away from the cold style) and those that spend the most money on marketing their new name.

Our results are consistent with a simple story. Older, poorer performing funds (in terms of three factor alphas), that have not spent much on marketing fees and have experienced a significant drop in their fund inflows change their names to earn an increased flow from being associated with the current glamour style. We find that the funds with the greatest increases in post-name change flows are “hot” style funds associated with the greatest increases in marketing expenditures. However, the increased flows are not all driven by advertising; we also find large increases in flows for funds that make “hot” name changes and either do not increase their advertising or spend little or nothing on advertising after their name change, suggesting that a mere association with the current glamour style is enough to garner large and permanent fund flow increases for the mutual fund.

The fact that increased flows are associated with increased marketing expenditures is consistent with Jain and Wu (2000) and Sirri and Tufano (1998). However, in those two papers, increased marketing serves to highlight a fund’s recent high performance. In contrast, the funds in our sample are quite average in terms of pre-name-change performance. Thus, investors appear to be deceived by the name-

change funds advertising their “new” glamour style and are deceived even more by the name-change funds that spend more on advertising. In contrast to the fund managers, who are clearly rewarded via increased fee revenue, the investors in such name-change funds are not rewarded in terms of increased fund performance. We find that after a name change, the average funds’ three-factor alpha is significantly negative.

Our result that investors’ buying and selling behavior towards mutual funds is influenced by name changes is consistent with a growing body of literature that documents that investors are irrationally influenced by cosmetic effects. For example, Hirshleifer (2001) discusses recent evidence that irrelevant, redundant, or even old news affects security prices when presented saliently.<sup>1</sup> In addition, our results that mutual fund managers time their name changes to take advantage of shifting investor sentiment is consistent with recent research that managers appear to understand stock market inefficiencies, and take advantage of them through corporate actions such as equity issues, dividend issuance decisions, and mergers.<sup>2</sup>

The paper is organized as follows. In Section I, we discuss the data sources used to create the sample and describe the event study methodology. In Section II, we present the results, perform various robustness checks, and test various hypotheses related to the determinants of the fund flows. Section III concludes.

## **I. Data and methodology**

[TABLE I ABOUT HERE]

Table I describes the sample selection process. We use data from CRSP, Lipper, and Morningstar over the 1994 to 2001 period to identify name changes.<sup>3</sup> We use the CRSP mutual funds database to create our initial cut of name-change funds. We sort all funds in CRSP on their ICDI number, and then keep track of name changes in the NAME field for the same ICDI number. The ICDI numbers, similar to the permanent numbers (PERMNO) in the CRSP individual stock database, are permanent, and thus allow us to track

name changes for a given fund. This provides us with 15,972 name changes. Next, we screen on funds that have an apparent change in the fund's investment style as indicated in the fund's old/new name. Funds are defined as having a style name change if the new name is different from the old name by one of the following style identifiers: "Value/Val", "Growth/Gr/Grth", "Small/Sm" and "Large/Lg". If a new name includes any of these phrases and the old name does not, then the name change is classified as a "to" name change event. Similarly, if any of these phrases are dropped in the new name, then the name change is classified as a "from" name change event. After retaining only funds with style name changes in the CRSP data, we are left with 935 name changes that are associated with an apparent change in the fund's investment style as indicated in the fund's old/new name.

A fund name change typically involves name changes in all the share classes of the fund. However, not all name change funds have multiple share classes. Thus, following Chen, Hong, Huang, and Kubik (2003) and Carhart, Carpenter, Lynch, and Musto (2002), to avoid double counting, we retain only the primary share class of each fund, leaving us with 490 events. Next, we use data provided by Morningstar and Lipper to identify the month of the name change. The data from Lipper and Morningstar include both the new and old names, along with the effective dates of the name changes. We retain the fund in the sample only if the dates of the name change are available, and are within one month of each other in the Morningstar and Lipper databases, using the earlier of the two dates as the announcement date if the dates do not match, which reduces the sample to 348 events. Lastly, restricting the population to only equity mutual funds yields a final sample of 332 style name changes over the April 1994 to July 2001 period. As reported in Table I, we identify 108 (128) cases where the term "value" ("growth") is added to or dropped from the fund's name and 52 (44) cases where the term "small" ("large") is added to or dropped from the fund's name. As some name changes involve more than one style, these 332 name-change events are associated with 296 funds. The Appendix lists a random sample of 25 funds that changed their names, including the fund's old name, new name, and resulting name-change category. For example, the "Gabelli Global Interactive Couch Potato Fund" changed its name to "Gabelli Global Growth Fund," adding a "growth" to its name, thus earning itself a name-change categorization of "To Growth".

[Figure 1 ABOUT HERE]

Many of the name changes in our sample correspond with large changes in the value/growth and small cap/large cap premiums over this period. Figure 1 graphs data on the quarterly distribution of these name changes over our sample period. Each panel in the figure plots the number of name changes towards a particular category and away from the opposite category. The panel also reports the 3-month lagged difference between the return to the style the fund changes to and the return to the style the fund changes away from (using size and B/M quintile portfolio returns from Ken French's website). For example, Panel A reports the number of name changes towards value and away from growth. It also reports the 3-month lagged difference in returns between value (the highest B/M quintile portfolio) and growth (the lowest B/M quintile portfolio). Name changes tend to occur in waves: roughly 45 percent of the funds in our sample make a name change in 2000-2001 alone. More interestingly, the panels show that funds tend to change their name to associate themselves with the current high return style and/or to disassociate themselves from the current low return styles. For example, as illustrated in Panel A, in the fourth quarter of 2000, the value portfolio earned 22.4 percent in excess of the growth portfolio; over the subsequent quarter (Q1 2001) 12 funds changed names to include "value" in the new name and seven funds dropped "growth" from their names. During the same period, only two funds changed names to include "growth" in the new name and two funds dropped "value" from their names. We analyze the relationship between lagged style premiums and subsequent name changes more formally in the next section.

## II. Results

### *A. Descriptive Statistics*

Table II Panel A reports the mean and median characteristics both for the name-change fund sample and for the universe of all other equity funds, matched on the date of the name change. We report data on lagged returns, excess returns, standard deviation of returns, total net assets, fund flows, expenses, fees, and the fund age in months.

[TABLE II ABOUT HERE]

As in Sirri and Tufano (1998), we define the fund flow over the period  $t-1$  to  $t$  by the formula

$$\text{Fund flow} = [\text{TNA}_t - (1+r_t) \text{TNA}_{t-1}] / \text{TNA}_{t-1}$$

where  $\text{TNA}_t$  is a fund's total net assets at time  $t$ , and  $r_t$  is the fund's return over the prior month. The daily Fama-French three-factor alpha (Fama and French (1993)) is calculated for each fund using up to 24 months of daily returns data prior to the date of the name change, with a minimum of two months of data required to compute the alpha. Daily fund total returns are obtained from the Wall Street Web returns database, described in Goetzmann, Ivković and Rouwenhorst (2001).<sup>4</sup> The total load is the total of all maximum front, deferred and redemption fees applied to a fund. The expense ratio (over the calendar year) is the percentage of the total investment that shareholders pay for the mutual fund's operating expenses. The 12b-1 fee is a charge which is deducted from the underlying mutual fund's total assets to cover the cost of distribution and marketing. The value reported is the annual percentage of total assets attributed to this expense as of the fiscal year end, as reported in the prospectus. The fund age is the number of months that the fund has been in existence up to the event month and is calculated using the `FIRST_DATE` variable in the CRSP mutual fund database.

Prior to the name change, both on a mean and median level, the name-change funds appear to charge slightly lower 12b-1 fees, earn higher six-month raw returns, and earn lower three factor alphas than the corresponding fund in the equity universe. The name change funds are also typically older; the median fund in our sample is 22 months older than the median fund in the universe (matched at the time of the name change). Most importantly, the name-change funds experience negative fund flows over both the one- and six-month periods before the name change, in comparison to the average equity fund in the universe.

To check whether these funds are typical of funds in the universe, we report in Panel B the number of name change funds within each quintile based on breakpoints obtained from the characteristics of the

universe of all equity funds (excluding the name-change funds). For each name change, the quintile breakpoints are determined relative to all other funds on the event date. Quintile one (Q1) is the smallest and five the largest. The panel also reports p-values from a  $\chi^2$  one-sample test to test if the counts of the name change funds are uniformly distributed across the quintiles. The name-change funds earn similar one-month lagged returns and excess returns (as measured by the Fama-French three-factor alpha) as the universe – the one-sample test is unable to reject the hypothesis that the quintile distribution is uniform. They earn higher returns over the six months before the name change – more than half the funds fall into the largest two quintiles.<sup>5</sup> They are typically larger – approximately half the funds fall into the largest two quintiles for total net assets. The name change funds are older –  $\frac{2}{3}$  of the sample fall into the largest two quintiles for fund age. They have slightly higher standard deviations – more than  $\frac{2}{3}$  of the sample falls into the upper three quintiles. Finally, they experience a much lower fund inflow than typical in the universe – both over one month and six months, approximately half the name-change funds lie in the smallest two quintiles.

Our data on expenses and loads are typically discrete – there is significant clustering of loads and fees around 0 percent, 0.5 percent, and so on. Panel C therefore reports load and expense data for the mutual fund sample and the universe of equity mutual funds, sorted into absolute bins.<sup>6</sup> The panel also reports p-values for a Mann-Whitney nonparametric test to test the equality of the distribution for the sample and the universe. The sign of the statistics for all the three variables are negative - the distribution of these variables for the name-change funds are on the left of those of other funds. In other words, the name-change funds have significantly lower expenses and 12b-1 fees before the name change. The total load is marginally significant at the six percent level.

*B. What type of funds change their names and when?*

To get a more precise idea of what kinds of funds change their names and when they choose to do so, Table III reports results for two types of logistic regressions. Using a cross-sectional logistic regression, in Panel A we investigate what kinds of funds choose to change their names. Using data from the month of the name change, we assign a dummy of one to the name-change fund and a zero to all the remaining non-name change equity funds in the universe. This is our dependent variable. We then stack the data across the name-change events to create our sample for Panel A. Consistent with the patterns reported in Table II, the mean fund flow over the six months prior to the name change is significantly negatively related to the likelihood that a fund will change its name. In addition, 12b-1 marketing fees and three-factor model alphas are negatively related to the likelihood of a name change. Finally, the age of the fund is positively related to the likelihood of a name change. To summarize, older funds, with more negative excess returns, which have historically spent less on marketing, are more likely to change the names of their funds when fund inflows drop.

[TABLE III ABOUT HERE]

In Panel B, we investigate, only for the sample of name-change mutual funds, at what point in their life cycle do the funds choose to change their names. We report results for a time-series logistic regression for each name-change fund. We use all the time series data available for these funds and regress a dummy for the name-change month on the lagged explanatory variables. In other words, for every name-change fund, the left hand side variable takes the value one at the name-change month and zero in all other months. We report separate regressions for “to” style changes and “from” style changes.

The most important determinant of a name change is the fund flow – across all our specifications, the lagged six-month mean fund flow is significantly negatively related to the likelihood that a fund will change its name. “To” name-change fund managers appear to time their name changes to occur after increases in the investment styles that are implied by the funds’ new names. Similarly, “from” name-change managers appear to time their name changes to occur after decreases in the investment styles that

were implied in the funds' old names. This is evident in the positive and significant loadings on the lagged six-month style premiums in all four "to" regression specifications, and in the negative (but only significant at the ten percent level) loadings on all four "from" specifications.

In other words, when a particular style premium is earning a high six-month lagged return, the fund is more likely to switch to this style. Similarly, when the style premium is low, the fund is more likely to switch from this style. From the standpoint of the fund manager, the results in Table III tell a simple story: the inflows to a fund may be down because the fund is not outperforming the market on a risk-adjusted basis. If investors treat the name-change fund as a new fund, particularly one associated with a hot style, the change in name may stem the decline in inflows.

### *C. The impact of name changes on abnormal fund flows*

The fund flow literature has shown that investors tend to base their fund purchase decisions on prior performance (Spitz (1970), Smith (1978), Warther (1995), and Chevalier and Ellison (1997)). This performance-flow relationship is nonlinear in that investors direct their investments to funds that perform well in the recent past but fail to direct investments away from poorly performing funds (Ippolito (1992), Gruber (1996), Carhart (1997), Goetzmann and Peles (1997), Sirri and Tufano (1998), and Lynch and Musto (2003)). In addition, minimization of search costs appears to be important to investors: holding performance constant, funds that spend money to advertise their past good performance tend to attract more inflows than other funds (Sirri and Tufano (1998)).

To control for these factors, we use a propensity score algorithm (see Villalonga (2001) or Hillion and Vermaelen (2004)) to estimate abnormal flows to our sample. Propensity score matching algorithms are becoming increasingly popular to construct suitable control groups in non-experimental studies. This is because no constraints need to be imposed on the matching variables. More importantly, they accommodate a high number of matching variables. The task of constructing a matched sample becomes impossible when there are several characteristics in which the treatment and control groups differ. Since

we need to control for fees, loads, performance, total net assets, and other characteristics, the propensity score methodology offers a parsimonious approach to obtaining matching funds to compute abnormal flows.<sup>7</sup>

To estimate a propensity score for each fund, we estimate a logistic regression for each event date by assigning the dependent variable for each name-change fund a dummy of one, and all other funds zero. We use the following independent variables: the one-month lagged log of total net assets, six-month return to the fund before the name-change month, average fund flow and standard deviation of returns over the six months before the name change, the 12b-1 marketing fees before the name change, and the Fama-French three-factor alpha of the fund (calculated using daily data over the two years before the name change), and the log of the age of the fund in months. For each name-change fund, a matching no-name change fund is identified as the fund with the closest propensity score to the name-change fund. Abnormal fund flows are computed for each name-change fund in our sample with respect to their matching fund.<sup>8</sup>

[TABLE IV ABOUT HERE]

Panel A of Table IV reports cumulative abnormal flows to all name-change funds, hot style name-change funds and cold style name-change funds. Hot style name changes are defined as name changes towards (away from) a particular style when the corresponding style premium is up (down). Cold style name changes are defined as name changes away from (towards) a particular style when the corresponding style premium is up (down).

To make these classifications, we use size and B/M quintile portfolio returns from Ken French's website. For "value" name changes, we use the highest B/M quintile portfolio, for "growth," we use the lowest B/M quintile portfolio, for "large," the highest size quintile portfolio and for "small," the lowest size quintile portfolio, respectively. For every name-change fund, in the event month, we first calculate the holding period return to the corresponding style portfolio over months -6 to -1 relative to the name change. If a name change is a "to" ("from") name change and the lagged six-month return to the corresponding style is positive, the name change is classified as a hot style (cold style) name change.

Similarly, a “to” (“from”) name change accompanied by a negative lagged six-month return to the corresponding style, is classified as a cold style (hot style) name change. We calculate cumulative abnormal flows (CAFs) to measure the fund flow performance over various event windows before and after the name-change periods. In each event month, individual fund percentage abnormal flows over the corresponding matching funds are averaged to obtain an overall percentage flow measure for that month. Then these monthly flows are cumulated for the specified event period to obtain a CAF for that period.

As reported in the first row of Table IV, Panel A, in the year prior to the name change, the funds do not experience statistically significant abnormal flows, suggesting the propensity score algorithm did a good job in finding matching funds. In contrast, in the year after the name change, the increase in abnormal flows is quite striking. Cumulative abnormal flows in excess of those earned by a matching fund are 20.17 percent in the year after the name-change month. A greater number of funds make hot style changes (206 or 65 percent) than make cold style changes (111 or 35 percent).<sup>9</sup> Remarkably, we find that the increase in fund flow is *entirely* concentrated in funds that make a hot style name change. These funds earn significant cumulative abnormal flows of 12.42 percent in the three months after the name-change month, as compared to 0.47 percent for funds that made cold style name changes. Over the year after the name change, hot style funds earn CAFs of 27.63 percent, as compared to an insignificant 3.98 percent for cold style funds. Over all periods after the name change, hot style funds earn significantly higher abnormal flows than cold style funds.

Next, we test whether there is a difference in flows when the name change is cosmetic in the sense that the fund’s investing style, as reflected by the fund’s new name, does not reflect its portfolio holdings, as opposed to non-cosmetic name changes, where the style implied in the fund’s new name does match the holdings of the fund. In other words, we ask the question, “Are fund managers rewarded with increased flows if they simply change their name to reflect the current glamour style, even though the implied style of their fund’s holdings is not reflected in their new name?” An efficient market should not reward a cosmetic name change with an increased fund flow.

We define cosmetic and non-cosmetic name changes by computing post-name change fund-return factor loadings and then use those loadings to judge whether or not the funds are really following the investment styles implied by their names (similar to Lakonishok, Shleifer, and Vishny (1992)). Specifically, for each name-change event, we regress the daily fund excess returns over the two year period after the name change (or all available data, if less than two years is available) on the daily values of the Fama-French three factor model premiums.<sup>10</sup> For each event, we keep track of the appropriate factor loading that corresponds to the fund's new name. For example, we retain the HML loading for a "to value" name-change and the SMB loading for a "from small" name change. Next, we compute loadings for "pure" style funds in order to define cosmetic and non-cosmetic breakpoints. We use high and low quintile book-to-market and size portfolios as our proxy for pure style funds.<sup>11</sup> We regress daily excess returns of these portfolios on the daily three-factor model premiums to obtain breakpoints for each style loading (value, growth, small, and large). If a name-change fund's factor loading exceeds the breakpoint for a specific style, then that fund is deemed a non-cosmetic fund (its new name is an accurate description of its portfolio holdings).<sup>12</sup> If a name-change fund's factor loading does not exceed the breakpoint for a specific style then that fund is branded a cosmetic fund (its new name is not an accurate description of its portfolio holdings).<sup>13</sup>

Table IV, Panel B reports the event study CAFs broken down by cosmetic and non-cosmetic classifications and Panels C.1 and C.2 report the cosmetic/non-cosmetic classifications broken down into "hot" and "cold" name changes, respectively.<sup>14</sup> The majority of name-change funds are cosmetic (63 percent).<sup>15</sup> Conditional on making a cosmetic name change, a much greater number of name changes are "hot" (78 percent) rather than "cold" (22 percent). Conditional on making a non-cosmetic name change, 44 percent are "hot" and 56 percent are "cold." These breakdowns on the percentages of name-change types are consistent with fund managers believing that they will earn increased flows from changing their fund name to be associated with the current glamour style, even if the new name does not accurately reflect their fund holdings.

The flow numbers support this conjecture. Rejecting the hypothesis that cosmetic name changes should not earn abnormal fund flows, we find in Panel B that over the three months after the name change, there is no statistical difference in the flows to cosmetic and non-cosmetic name changes, with cosmetic funds garnering abnormal flows of 9.99 percent and non-cosmetic funds experiencing inflows of 9.17 percent. We find no difference in abnormal flows across the cosmetic and non-cosmetic name change types over any horizon.

Table IV, Panel C.1 and C.2 report cumulative abnormal flows for the two-way sort between cosmetic and non-cosmetic hot and cold name changes, respectively. Again, there is no evidence that cosmetic name-change funds earn statistically lower flows than non-cosmetic name-change funds. The only obvious pattern is that hot style name-change funds continue to earn significantly higher CAFs than cold style name-change funds.

Finally, we create a “change-in-holdings” measure which calculates the extent to which a fund changes its effective portfolio holdings from before to after the name change (not reported in the tables). We use this measure in combination with the previous cosmetic measure to examine the difference in flows among the four combinations of cosmetic/non-cosmetic interacted with change-in-holdings/no-change-in-holdings. We compute the change-in-holdings measure as follows: we use two years of daily returns before and after the name change (or all available data if less than two years requiring a minimum of two months of daily returns) to estimate beta loadings for the Fama-French three-factor model in the pre- and post-name change periods. From these beta estimates, we compute the squared differences on the appropriate pre and post SMB or HML loadings for every fund. For example, for a “to value” fund, we compute the squared differences on its pre and post-HML loadings. We classify funds into “no change” in holdings or “change” in holdings by comparing the name-change fund’s squared difference in loadings to breakpoint values.

It might seem reasonable to define funds as “no-change-in-holdings” if the squared difference in loadings is close to zero, but that would ignore changes in loadings which arise from noise in the fund return/three-factor premium relationship, thus upward biasing the number of “change” funds. To obtain a

reasonable proxy for the shifts in factor loadings that are not due to changes in true style, we calculate the 95<sup>th</sup> percentile of the distribution of the squared differences in loadings for each of the “pure” style portfolios (high and low quintile book-to-market and size portfolios). To create the distribution, for each style, we regress the daily excess returns of each portfolio on the three-factor model over an initial two-year period and then again over a subsequent, contiguous two-year period. We compute the squared difference in the loadings (HML for the book-to-market portfolios and SMB for the size portfolios, respectively) across these two periods. We roll forward one month and recompute the squared differences for each style. We continue rolling forward one month and re-estimating the squared differences in loadings until we reach the end of our sample. We classify each name change into “no-change in holdings” or “change-in-holdings” by comparing the funds’ squared difference in loadings to the 95 percent point of the appropriate style’s squared-difference-in-loadings distribution. If the name-change fund’s squared difference is less than (greater or equal to) the 95 percent breakpoint, the fund is classified as “no-change in holdings” (“change in holdings”).<sup>16</sup>

Using this change-in-holdings measure, 44 percent of the funds have no effective change in holdings from before to after the name change. Perhaps, even more striking, only 22 percent of our sample is classified as funds that actually do change their holdings and have a new name that accurately reflects their portfolio (i.e., “change-in-holdings/non-cosmetic”). Interestingly, we find no statistical differences in the post-name change flows across these four categories of change-in-holdings/cosmeticity. All four categories experience statistically significant positive abnormal flows after the name change. For example, the “no-change in holdings/cosmetic” funds earn CAFs of 23.97 percent over the year after the name change and “change-in-holdings/non-cosmetic” funds earn 20.51 percent over the same period. As in our previous analysis that split the funds only along the dimension of whether or not the fund’s new name matches its holdings, we find that the only obvious pattern across all four categories is that hot style name-change funds earn significantly higher CAFs than cold style name-change funds.<sup>17</sup>

#### *D. Robustness checks*

We first examine raw flows to funds to check if the patterns we see are artifacts of our matching methodology. Our results are qualitatively unchanged. Funds experience significantly positive raw flows in the year after the name change. Raw flows to all name-change funds are on the order of 20 percent in the year after the name-change month. Again, the increase in fund flow is almost entirely concentrated on funds that make a hot style name change. These funds earn significant cumulative raw flows of 24.37 percent in the year after the name-change month, as compared to 8.50 percent for funds that made cold style name changes. The difference between the two types of name changes is statistically significant across all periods after the name-change month.

Consistent with the abnormal flow results, we find that there is no difference in raw flows between cosmetic and non-cosmetic funds over any of the post-name change event windows. For example, funds making cosmetic and non-cosmetic name changes experience raw flows of 22.41 percent and 16.19 percent, respectively, over the year after the name change.

Second, we examine fund flows relative to the median flow of all equity mutual funds. Again, our results are qualitatively unchanged. As before, all of the significant post name-change flows occur in the “hot” style changes, and we do not observe a difference in flows between cosmetic and non-cosmetic names.

Third, Jayaraman, Khorana, and Nelling (2002) find significant changes in shareholder wealth and negative fund flows in the year after mutual fund mergers. We test that our abnormal flows are not being biased in month one of the name change due to a mechanical increase in flows from a fund merger. We do not believe that it is likely that our fund flow effects are related to fund mergers, since we require the fund ICDI number to be the same across the name-change period. Nonetheless, we estimate the abnormal flows, using propensity-score matched funds, for months one to twelve after the name change, removing month zero from the abnormal flows. We find that the results are quite robust to this control; from months one to twelve, all name-change funds experience an increase in abnormal flows of 17.36 percent (t-

statistic = 6.70). Again, hot name changes earn much greater flows than cold changes, at 23.75 percent and 3.22 percent, respectively.

Fourth, we control for fund manager turnover. It may be the case that new managers attract increased flows, perhaps due to these funds advertising their new managers, and investors subsequently believing that new management will bring increased performance to the fund. Thus, increases in fund flows would not be due to the fund's name change, but rather to investor reaction to the announcement of new fund management. To control for this potential upward effect on fund flows, we estimate abnormal flows for Table IV, Panel A, by removing funds that experienced changes in fund management. Using the MGR\_DATE variable in the CRSP mutual funds database, we identify 39 cases where there was a change in management during the six months surrounding the name change. Interestingly, these funds experienced significantly more negative flows prior to the name change relative to funds that did not experience manager turnover<sup>18</sup> – perhaps fueling the manager's demise. For the remaining 257 funds, the results look very similar to the original Table IV Panel A; the CAF during the year after the name change is 21.77 percent (t-statistic = 7.14) for all name changes, and again the difference between hot and cold style name changes are statistically significant, at 29.38 percent for hot, and 4.98 percent for cold style changes, respectively.

Finally, we control for the effects of other investment style name changes in addition to the two dimensions of value/growth and small/large. Fund names often capture styles not spanned by these factors. We want to ensure that our evidence of abnormal flows is not driven by other styles that may also change in the value/growth and small/large name changes. To implement this, we reproduce the Table IV event study by excluding any name changes that also have another style implied in either the old or new name.<sup>19</sup> The sample now contains 206 name-change funds, a reduction of 90 funds from the full sample. The abnormal flow results are robust to this change. The CAF during the year after the name change is 16.12 percent (t-statistic = 5.12) for all name changes, and again the difference between hot and cold style name changes are statistically significant, at 23.08 percent for hot, and 1.27 percent for cold style changes, respectively. Also, as documented previously, the differences in abnormal flows between

cosmetic and non-cosmetic name changes are also not significant. In the year after the name change, the CAF for cosmetic name changes is 18.91 percent and is 13.40 percent for non-cosmetic name changes, with the t-statistics for the difference being 0.84. The differences in abnormal flows between cosmetic and non-cosmetic name changes under the “hot” and “cold” classifications are not significant as well. The t-statistics for the differences in flows between cosmetic and non-cosmetic name changes is -0.66 for the hot style name-change funds and 0.46 for the cold style name-change funds.

*E. What determines abnormal flows to the funds?*

Table V reports results for regressions of post-name change cumulative abnormal flows to name-change funds in the three months after the name change on a number of variables. The first variable is a hot style dummy (defined as one if the name changes towards (away from) a particular style when the corresponding style premium is up (down) and 0 otherwise). The next variable is the cosmetic dummy (defined as one if a fund’s new name accurately reflects its holdings, 0 otherwise). We include a “to” style dummy (defined as one if the move is to a particular style and zero otherwise) to check if the fund flows are different across “to” and “from” style name changes. Sirri and Tufano (1998) and Chevalier and Ellison (1997) show that an important determinant of abnormal inflows is past performance relative to the universe of funds. We control for the prior abnormal performance of the fund by including the decile ranking of the name change fund’s daily Fama-French three-factor alpha calculated over months -24 to -1 before the name change relative to the universe of all equity funds. To control for the raw performance of the fund, we also include the decile ranking of the name change fund’s 3-month raw return from months -3 to -1 before the name change relative to the universe of all equity funds. Other control variables include the cumulative abnormal flow over the matching fund from the -3 to -1 period before the name change, changes in 12b-1 fees, total load and expense ratios between the three months before to the three months after the name change, the mean log of total net assets over the -3 to -1 period before the name change, and the log of the fund age in months.

[TABLE V ABOUT HERE]

Across all models in Table V, the hot style dummy is statistically significantly related to the CAFs earned by the fund. Funds changing their names to hot styles earn significantly higher flows than funds changing their names to cold styles. Consistent with the results in Table IV, the cosmetic measure is never significant in any regression in Table V. Cosmetic and non-cosmetic name change funds earn similar fund flows.

In Table IV and in the regressions in Table V so far, funds are assigned to cosmetic or non-cosmetic categories depending on whether the post-name-change Fama-French loadings exceed the loadings of the relevant pure style indices. Similarly, our definition of funds which change their holdings from pre to post name change (i.e, the “change-in-holdings” measure) relies upon a potentially arbitrary cutoff. Thus, our methodology might mislabel some non-cosmetic funds as cosmetic or some change-in-holdings funds as having no-changes-in-holdings when they do actually change their portfolios. If this is occurring, then we may be falsely concluding that abnormal flows to these funds are irrational, when in fact the increase in inflows may be a rational response to non-cosmetic changes.

As a robustness test on our definitions of cosmetic/non-cosmetic and change-in-holdings, we therefore include a continuous cosmetic measure (the absolute value of the appropriate post-name change HML or SMB loading), and a continuous change-in-holdings measure (the squared difference on the appropriate pre and post SMB or HML loadings). These two measures are alternative ways of capturing whether the name change is material. The continuous cosmetic measure measures whether the fund’s new name really reflects its holdings after the name change. The continuous change-in-holdings measure examines whether the fund materially changes its holdings from before to after the name change. We report these specifications in models nine and 10. In neither model is the coefficient on the cosmetic or the distance measure significant. Thus, flows do not appear to be dependent on whether a fund’s new name really reflects its holdings nor whether or not a fund changes its portfolio from before to after the name change.

Also, there is no difference between “to” style changes and “from” style changes. Performance prior to the name change does matter in determining post-event flows; the coefficients on the decile rank of a

fund's Fama-French three-factor alpha is positive and significant in many of the model specifications. The size of the fund is also important; across all but one regression model, funds with lower total net assets (TNA) prior to the name change experience greater post name-change flows. When we include Age of the fund (specifications eight - 10), it drives away the significance of TNA in model eight, but does not in models nine and 10. However, Age is insignificant.<sup>20</sup> The change in 12b-1 marketing fees is positively and significantly related to the cross-section of fund flows in the post name-change period, whereas the change in loads is not. Changes in total expenses are important; funds with higher total expense ratios have decreased flows after the name change. The fact that increased flows are associated with increased marketing expenditures is consistent with Jain and Wu (2000) and Sirri and Tufano (1998).

*F. Are the abnormal flows driven by marketing?*

Fundamentally, name changes are changes in packaging that may or may not reflect changes in the fund. If these changes were deliberate, it seems reasonable to assume that funds would advertise as part of the same strategy that led to the name change. In other words, what good is a name change that nobody notices? Our results on the differences in fund flows between hot and cold style name-change funds might be driven by differences in advertising. Consistent with this, as noted in the last section, Table V shows positive and highly significant coefficients on 12b-1 fees for all regression parameterizations where non-interactive 12b-1 fees are included (models four - six, and nine - 10). Sirri and Tufano (1998) discuss how advertising can be thought of as reducing search costs for investors, thereby making advertising induced increased inflows appear to be rational. The question we address in this section is whether the effect we document is a rational advertising effect or whether it is due at least in part to investor irrationality. If the abnormal fund flows to hot style name-change funds are entirely due to investors reacting rationally to advertising, we might expect to see three effects. First, changes in advertising should have the same effect on hot style and cold style name-change fund flows. Second, funds that do not change their advertising expenses should not experience an increase in abnormal flows.

Third, hot style name-change funds that spend little or no money on advertising after the name change, should not experience an increase in abnormal fund flows.

We start by investigating whether 12b-1 fees changes differentially affect hot and cold style name-change funds and cosmetic name changes. We add interactive dummies for hot/cold and cosmetic/non-cosmetic funds; a hot dummy $\times$ 12b-1 fees variable (where the hot style dummy is defined as one if the name changes towards (away from) a particular style when the corresponding style premium is up (down) and 0 otherwise), and a cosmetic dummy $\times$ 12b-1 variable (where the cosmetic dummy is defined as one if the a fund's new name accurately reflects its holdings, 0 otherwise). We report this specification in models seven and eight of Table V. Adding the interactive dummy terms drives away the significance of the non-interactive 12b-1 fee term and the expense ratio term, and reduces the significance of the Fama-French three factor alpha. Controlling for fund age in model eight does not reduce the significance of the interactive 12b-1fee $\times$ hot dummy term. The funds that appear to benefit the most from advertising their new names are the "hot" name-change funds; those funds have a positive and highly significant coefficient loading on the hot dummy $\times$ 12b-1 fee variable. Note however that the abnormal flows to the hot style name change funds are not driven entirely by marketing since the non-interacted dummy variable on hot-style name changes is still statistically significant when the interaction term is included. The amount of advertising spent by cosmetic and non-cosmetic funds does not result in significantly higher flows for either category of funds; the coefficient loading on the cosmetic dummy $\times$ 12b-1 term is statistically insignificant.

We next directly investigate whether funds with no changes in advertising expenses experience increased post name-change fund flows. We recompute the event study abnormal flows for Table IV, Panel A by only including those funds with no changes in 12b-1 fees from the 12 months prior to the 12 months after the name change. We find that 231 (65) name-change events occur without (with) changes in 12b-1 fees. Funds that change their names without changing their 12b-1 fees experience statistically significant CAFs of 18.69 percent in the year after the name change. Further, consistent with Table IV Panel A, all the abnormal flows in the no-change-in-12b-1 funds are due to the hot name-change funds.

The hot funds have abnormal flows of 25.89 percent in the year after the name change, significantly larger than cold fund flows of 1.55 percent over the same period.

Third, we sort hot and cold name changes into the top half and bottom half of post-name change 12b-1 fees.<sup>21</sup> For both hot and cold funds, we expect that funds with high levels of advertising should experience increases in inflows. In contrast, for funds with low levels of advertising, we should expect no increase in flows for either hot or cold funds. An increase in fund flows for hot funds (if in fact investors target these funds because of the “glamour” style suggested in the fund’s new name) suggests some degree of irrationality on the part of investors.<sup>22</sup>

Cold name-change funds experience abnormal flows of 0.41 percent (t-statistic = 0.11) one year after the name change for the low 12b-1 fee funds and abnormal flows of 7.30 percent (t-statistic = 1.66) for the high 12b-1 fee funds over the same period. Thus, cold name changes that take place without increases in advertising do not experience increased flows, and cold name changes accompanied by increases in advertising do experience an increase in flows, but it is only marginally statistically significant. The small increase in flows is not due to increases in post-name change performance; the cold name-change funds with high 12b-1 fees have statistically insignificant 3-factor alphas of -0.06 percent in the year after the name change.

More interestingly, hot name-change funds in the bottom half of 12b-1 fees experience statistically significant increases in flows of 18.06 percent in the year after the name change, while paying out close to zero in 12b-1 fees. This is quite dramatic, since these funds do not exhibit superior risk-adjusted performance in the year after the name change (their monthly 3-factor alpha is -0.13 percent (t-statistic = -1.31)) and spend almost no money on advertising. While hot name-change funds in the top half of 12b-1 fees experience statistically significant increases in flows of 37.19 percent, similar to the low-advertising hot-funds, these hot-style high-advertising funds do not earn positive abnormal returns following the name change (their average monthly 3-factor alpha is -0.33 percent (t-statistic = -4.12)).

In Jain and Wu (2000) and Sirri and Tufano (1998), increased marketing serves to highlight a fund’s recent high performance. For example, Jain and Wu (2000) find that funds that advertise their good

performance earn an increase of approximately five percent in next year's fund flows. In contrast, the funds in our sample are quite average (and in some cases below average) in terms of pre and post name-change performance. Thus, investors appeared to be deceived by the hot name-change funds "new" glamour style and are deceived even more by the hot name-change funds that spend more on advertising.

Our evidence on 12b-1 fees suggest two effects driving investor fund flows. First, investors might choose to invest in hot name change funds simply due to the glamour style of the fund's new name. Second, investors may choose to invest in hot name change funds because of marketing efforts by the funds, brokers, and investment advisors. The first effect involves an active search by investors to find a particular glamour style fund among the universe of all funds. This is consistent with our results for hot name change low 12b-1 fee funds. In contrast, the second effect arises from investors being unduly influenced by marketing efforts. In this case, investors are likely influenced by broker initiated sales pressure highlighting the new glamour style of the fund. This latter effect is consistent with our results for hot name change high 12b-1 fee funds and with Elton, Gruber and Busse (2004), who find that investors sub-optimally invest in index funds with high loads and low returns (despite the existence of identical funds with low loads and higher returns).

The implication for fund managers desiring to increase flows is unambiguous: make a hot style name change, do not worry about your fund's performance (no excess returns are required before or after the name change to achieve large increases in flows) and advertise your fund if you want the biggest possible increase in flows.

#### *G. Changes in fund characteristics from before to after the name change*

[TABLE VI ABOUT HERE]

In Table VI we report the average monthly change in pre-year-to-post-year characteristics of the name-change funds. There is a significant increase in the monthly fund flow from 0.01 percent to 1.65 percent

across all funds. Again, this increase is mainly concentrated among hot style changes – after the name change, these funds earn an increased average monthly abnormal fund flow of 2.28 percent in the year after the name change. In contrast, cold style name changes earn a statistically insignificant average monthly abnormal flow of 0.33 percent in the year after the name change. The loads, expenses, and 12b-1 fees do not change significantly over the period.

After the name change, the funds do not perform better relative to their pre-name-change performance. Across all fund categories, the three-factor alphas are on average negative and not statistically different across the pre- and post-name change periods. For the hot fund name changes, the before and after three-factor alphas are significantly negative, with a before alpha of -0.11 (t-statistic = -1.92) and after alpha of -0.23 (t-statistic = -3.63). In terms of raw returns, there is evidence that they actually perform worse. The average name-change fund earns monthly returns of 1.34 percent in the year before the name change. This drops to 0.43 percent in the year after. Hot style name-change funds experience a drop from 1.42 percent to 0.33 percent in the year before and after the name change respectively. Cold style funds experience a smaller drop from 1.28 percent to 0.51 percent over these two periods. This has an effect on the total net assets figures reported in Table VI for the two types of funds. While hot style name-change funds earn significantly higher fund inflows than cold style name-change funds, the lower raw returns they earn on average from the year before to the year after the name change, relative to the cold style funds, imply that the total net assets in the hot style name-change funds increase on average from \$293.93 million to \$310.70 million – an increase of 5.71 percent. In contrast, total net assets for the cold style name-change funds increase from \$260.65 million to \$299.50 million, an increase of 14.91 percent.<sup>23</sup>

### **III. Conclusions**

We identify a sample of equity mutual funds that make a style name change over an eight-year period. Compared to other funds in the universe of equity mutual funds, the name change funds

experience a significantly negative fund flow over the six months before the name change, they earn lower excess returns (as measured by Fama-French three factor alphas), they are older, and they charge lower marketing 12b-1 fees.

When they do change their names, the funds earn significantly positive abnormal fund flows. Flows in excess of those earned by a matching fund are on the order of 20 percent in the one year after the name-change month. The increase in fund flow is almost entirely concentrated however, on funds that make a hot style name change. These funds earn cumulative abnormal flows of 27.63 percent in the year after the name-change month, 23.65 percent more than funds making cold style name changes. There is no difference in abnormal flows across cosmetic and non-cosmetic name change types.

Advertising, performance, and total net assets are significant in determining abnormal fund flows to these funds –larger funds attract less flows, while funds that perform better, and funds that advertise more, attract more flows. Even after controlling for these factors however, hot style name changes are significantly positively related to the magnitude of the abnormal flows.

To summarize our evidence, funds that have not spent much on marketing fees and have experienced a significant drop in their fund inflows, change their names to earn an increased flow. Part of this increase is due to the increased advertising associated with the name change. However, there is no relation between the degree to which the fund actually changes its portfolio holdings and the increase in fund flows. Instead, the fund flow seems to be driven almost entirely by changes into hot styles.

Sirri and Tufano (1998) find that consumers tend to flock to funds with recent superior performance, despite the evidence in Carhart (1997) that mutual fund managers do not exhibit short-term persistence once rewards to following mechanical strategies such as value and momentum investing are controlled for. Building on these results, our findings suggest that not only do fund investors behave less than optimally in ignoring Carhart (1997), but that a simple and appropriately timed name change can easily trick fund consumers into believing that a fund belongs to a current hot style. On average, the investors in these hot name-change funds lose money after the name change on a raw return basis, and are no better off on a three-factor model basis. Thus, given that the average switching costs are relatively high (total

loads, expenses and fees are about 3.75 percent), investing in these name-change funds appears to be suboptimal behavior on the part of mutual fund investors.

It is interesting to contrast our results with Berk and Green (2002) who develop a rational model of active mutual fund management to predict the relation between flows and subsequent fund returns. They show that a relationship among high past performance, subsequent increased investor flows, and subsequent insignificant excess returns is not inconsistent with investor rationality. In their model, some managers may have superior skills, but because of the competitive market for capital, combined with decreasing returns to scale in active management, many managers are not able to parley their skills into continued abnormal performance. In contrast, we find large increases in flows in a setting with no pre-name change excess performance for either the hot or cold style funds respectively, suggesting that our documented name-change abnormal flows are not explained by the Berk and Green (2002) model. Whether the reader believes that the documented fund flows in this paper provide evidence of “irrational” investor behavior, or just extremely informationally constrained investors being taken advantage of by smart managers, our results nonetheless suggest policy implications related to better fund disclosure requirements.

Data on actual portfolio holdings by mutual funds is hard to come by. As the *Wall Street Journal* (see McDonald, 2002) reports:

“So far this year the Investment Company Institute (ICI), the fund industry's largest trade group, has asked corporate managers to: speed up their earnings reporting; be more open about corporate insider trading; and seek shareholder approval for stock option plans, among other corporate governance initiatives. In a puzzling twist, however, the ICI maintains its long-held stance that funds shouldn't have to disclose their full portfolio holdings more than twice each year. Among its arguments: few of the more than 93 million individual U.S. fund investors have asked for more frequent and robust disclosure of where their more than \$5 trillion in assets are stashed. It's curious that the fund

industry remains immune to the disclosure rage that has thus far focused on Wall Street, accountants and publicly traded companies. Right now, federal rules require funds to provide full portfolio disclosure in semiannual shareholder reports, though data are often months old when presented to fund holders. In a fast-moving market, this seems a bit thin.”

Similarly, the current Securities and Exchange Commission (SEC) rules on fund names mandate that a fund have at least 80 percent of their assets invested in whatever securities their names suggest (O’Brian, 2001). However, there appears to be significant leeway in the application of this rule. For example, fund names which include the terms “small cap,” “midcap,” and “large cap” must abide by the rule, *if* an individual fund defines what those capitalization categories are in their prospectus. Making matters worse, there are no restrictions on using “value” and “growth” in a fund’s name. It is not surprising therefore that investors have little else to go on but the name when deciding which funds to invest in.<sup>24</sup>

However, there is some reason to believe that the behavior we document is at least partly driven by investor irrationality. All the flows appear to be concentrated among hot name changes. Further, these abnormal fund flows are not concentrated in the period immediately after the name change, but show a steady increase over the year after the name change. In addition, there is no post-event negative drift in flows even up to one year after the name change either for cosmetic or non-cosmetic name changes. It is difficult to believe that investors obtain no information about fund holdings over this stretch of time.

In this sense, our results add support to a growing body of literature documenting irrational investor behavior. Elton, Gruber and Busse (2004) document that investors do not select S&P 500 index funds based entirely on rational factors such as expected returns; they find that a large amount of new fund flow goes into the poorest performing funds. In addition, similar to the dotcom “mania” (Cooper, Dimitrov, and Rau (2001), Cooper, Khorana, Osobov, Patel, and Rau (2004)), this paper shows that mutual fund managers may be timing corporate actions to profit from investor irrationality. Name

changes that correspond with hot periods of investment styles appear to take advantage of investors who disregard the underlying performance of the fund, investing in funds simply on aesthetic effects. This is broadly consistent with Capon, Fitzsimmons, and Prince (1996) who document that most investors have little knowledge about the products they are buying.

[Appendix ABOUT HERE]

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<sup>1</sup> See Cooper, Dimitrov and Rau (2001), Huberman and Regev (2001), and Rashes (2001).

<sup>2</sup> See Baker and Wurgler (2000, 2002, 2004) and Shleifer and Vishny (2003).

<sup>3</sup> Due to the lack of monthly data in CRSP for some of the variables used in our study, our sample starts in 1994.

<sup>4</sup> We would like to thank Will Goetzmann and the Yale International Center for Finance for providing us with access to this data.

<sup>5</sup> Six month returns are geometric returns computed over an N month period using the formula  $(1+r_1) \times (1+r_2) \times (1+r_3) \times (1+r_4) \times (1+r_5) \times (1+r_6) - 1$ , where  $r_n$  is the return in month n.

<sup>6</sup> According to SEC rules, while asset-based 12b-1 fees may not exceed 0.75 percent annually, service fees of no more than 0.25 percent may be added to pay for continuing shareholder service. Thus, actual maximum 12b-1 fees are one percent per year.

<sup>7</sup> An alternative methodology to compute abnormal flows would be to develop a model of expected fund flows based upon multiple factors (such as performance, fees, etc.) and calculate the abnormal flows to a fund as the realized flows minus the expected flows. However, a potential weakness to this approach is that shocks that change expectations around the name change would result in non-stationarity in the model's estimated parameters, and thus give incorrect expected flow estimates. In contrast, the propensity score matching method may be more accurate, given that most unanticipated shocks should be impounded in both the name change fund and the matching fund.

<sup>8</sup> Later in the paper we also describe our results using raw and median flow measures.

<sup>9</sup> There are a total of 296 funds in our sample, which represent 332 name-change events. Thus, there are funds in our sample which have multiple events for the same name change. For example, consider a hypothetical fund changing its name from "Sure-Fire Growth Fund" to "Sure-Fire Value Fund." This would be classified as both a "from growth" and a "to value" name change. To avoid potential biases from double counting the flows to such funds, in all rows of Table IV we count such funds only once in the calculation of abnormal flows. In addition, the total number of hot/cold style name changes will be greater than 296, since a name change may be classified as both "hot" and "cold". Using the previous name change example, if the returns to both the value and growth portfolios have been positive, then the "from growth" part of the name change results in a "cold" classification (i.e., the name change is away from a current hot style), and the "to value" part of the name change results in a "hot" classification

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(i.e., towards a current hot style). To the extent that our classification scheme causes the same fund to be present in both the hot and cold styles, it should bias us against finding any difference between the two sub-samples.

<sup>10</sup> The three Fama-French factors are  $R_m$  (the excess return on the market), SMB (a zero-investment portfolio that is long on small capitalization (cap) stocks and short on big cap stocks), and HML (a zero-investment portfolio that is long on high book-to-market (B/M) stocks and short on low B/M stocks). We thank Ken French for providing this data. Details about the construction of the variables can be obtained from [mba.tuck.dartmouth.edu/pages/faculty/ken.french/](http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/).

<sup>11</sup> We would like to thank Ken French for providing us with the daily portfolio returns.

<sup>12</sup> Using this approach, to be defined as non-cosmetic value, a fund must have a loading of greater than 1.00 on HML; to be defined as non-cosmetic growth, a fund must have a loading of less than -0.42 on HML; to be defined as non-cosmetic small, a fund must have a loading of greater than 0.90 on SMB; and to be defined as non-cosmetic large, a fund must have a loading of less than -0.27 on SMB. These cutoffs are consistent with factor loadings from Table I of Fama and French (1996).

<sup>13</sup> Computing the breakpoints for the cosmetic/non-cosmetic definitions using the Fama-French *quintile* portfolios is a more conservative approach than using the *decile* portfolios in terms of not upward biasing the number of funds classified as cosmetic. Specifically, estimating the cosmetic breakpoints using the decile portfolios of Fama-French will result in more extreme breakpoint loadings, thus classifying more funds as cosmetic.

<sup>14</sup> As noted earlier, (see footnote 9), a fund's name change can be classified in multiple ways. Thus, the total number of cosmetic and non-cosmetic funds in Table IV, Panel B, and the sum of events across Panel C.1 and Panel C.2, will be greater than the 296 unique funds in our sample.

<sup>15</sup> Consistent with our finding that a majority of our sample funds' names do not reflect their holdings, Lakonishok, Shleifer, and Vishny (1992) show that the market betas of "value" funds are close to one and their returns are not correlated with a value portfolio.

<sup>16</sup> The average 95 percent point of the squared loading distribution for the pure style portfolios is 0.06, implying that loading changes of up to 0.24 are consistent with noise. The quintile breakpoints of our name change funds' squared difference in loadings are  $q_{20}=0.011$ ,  $q_{40}=0.047$ ,  $q_{60}=0.110$ , and  $q_{80}=0.32$ , placing 144 (186) of the name change funds in the no-change-in-holdings (change-in-holdings) category.

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<sup>17</sup> As a robustness test on the discrete two-state definitions of cosmetic/non-cosmetic and change-in-holdings, we examine continuous measures for both variables in Section II.E.

<sup>18</sup> The 12-month CAF prior to the name change for a fund that experienced a change in management is -14.16 percent while the average 12-month CAF for the other name change funds is 1.64 percent, with the difference in flows being statistically significant.

<sup>19</sup> Name changes involving one or more of the following terms in the old name, but not the new name, or in the new name, but not the old name, are excluded: income, core, strategic, U.S., select, capital appreciation, enhanced, balanced, alpha, timing, mid-cap, blue chip, long term, focus, low P/E, special, disciplined equity, emerging, aggressive, ultra, total return, one hundred, diversified, fundamental, index, OTC, contrarian, blend, and established.

<sup>20</sup> To control for potential multicollinearity between Age and TNA, we estimate model eight using Age but removing TNA (not reported in the tables). In this specification, the coefficient on Age is negative and significant ( $p=0.01$ ), suggesting that, controlling for other factors, younger funds experience greater flows after name changes.

<sup>21</sup> The 12b-1 fees and loads are clustered near zero (see Table II, Panel C). Thus, the lower median of the 12b-1 fees are mostly zero.

<sup>22</sup> We also examine the effects of the level of fund load after the name change. Sirri and Tufano (1998) discuss how both loads and 12b-1 fees may play important roles in reducing investors' search costs and thus promoting increased fund flows. 12b-1 fees are sometimes used in combination with contingent-deferred sales charges to fully or partially reduce front-end loads (Haslem (2003)). When we sort on total loads, we find that higher load funds do have greater post-name change flows, but consistent with the regression results from Table 5, the difference in flows across low and high loads, for both cold and hot name changes, are not statistically significant.

<sup>23</sup> The larger percentage increase in total net assets (TNA) for the cold style funds relative to the hot style funds is due to a smaller decrease in pre-to-post raw returns for the cold funds and to a large outlier fund in the cold style sample. When we remove the largest cold style fund (TNA = \$8.47 billion) and hot style fund (TNA = \$6.98 billion) based on TNA prior to the name change, the average TNA value before and after the name change for the cold style funds is \$215 million and \$223 million, respectively. The hot style average TNA value before and after the name change is \$255 million and \$283 million, respectively. The before and after flows for both hot and cold style funds are virtually unchanged by removing these two funds.

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<sup>24</sup> Barnett (2004) provides details on the SEC rules governing mutual fund names.

**Appendix**  
**Examples of Mutual Fund Name Changes**

Old Name	New Name	Name-Change Categories
AIM Small Cap Equity Fund	AIM Small Cap Growth Fund	To Growth
Aquinas Equity Income Fund	Aquinas Value Fund	To Value
Armada Equity Fund	Armada Equity Growth Fund	To Growth
BB&T Fds Grp: Growth & Income Stock Fund	BB&T Fds Grp: Large Company Value Fund	To Large, To Value
Berger One Hundred Fund	Berger Growth Fund	To Growth
DLB Disciplined Growth Fund	DLB Enhanced Index Core Equity Fund	From Growth
Dreyfus Premier Global Investing	Dreyfus Premier International Growth	To Growth
Evergreen Strategic Growth Fund	Evergreen Large Company Growth Fund	To Large
Firstar Stellar Growth Equity Fund	Firstar Large Cap Growth Fund	To Large
Founders Funds: Special Fund	Founders Funds: Mid Cap Growth Fund	To Growth
Fremont Mutual Fds: Growth Fund	Fremont Mutual Fds: Structured Core Fund	From Growth
Gabelli Global Interactive Couch Potato Fund	Gabelli Global Growth Fund	To Growth
J Hancock Special Value Fund	J Hancock Small Cap Value Fund	To Small
Lord Abbett Growth and Income Fund	Lord Abbett All Value Fund	To Value
MFS Value Fund	MFS Capital Opportunities Fund	From Value
Northern Small Cap Fund	Northern Small Cap Value Fund	To Value
Nuveen Growth and Income Stock Fund	Nuveen Large Cap Value Fund	To Large, To Value
Nvest Equity Income Fund	Nvest Large Cap Value Fund	To Large, To Value
Oakmark International Emerging Value Fund	Oakmark International Small Cap Fund	From Value, To Small
Pimco Funds: Mid Cap Growth Fund	Pimco Funds: Mid Cap Fund	From Growth
Pioneer II	Pioneer Value Fund	To Value
Pioneer International Growth Fund	Pioneer International Value Fund	From Growth, To Value
Preferred International Fund	Preferred International Value Fund	To Value
Safeco Small Company Stock Fund	Safeco Small Company Value Fund	To Value
State Street Research: Alpha Fund	State Street Research: Mid Cap Value Fund	To Value

**Table I****Mutual fund name-change sample description**

We use CRSP, Lipper, and Morningstar over the 1994 to 2001 period to identify name changes. We sort all funds in CRSP on their ICDI code, and keep track of name changes in the NAME field for the same ICDI code. We screen on funds that have an apparent change in the fund's investment style as indicated in the fund's old/new name. Funds are defined as having a style name change if the new name is different from the old name by one of the following style identifiers: "Value/Val", "Growth/Gr/Grth", "Small/Sm" and "Large/Lg". If a new name includes any of these phrases and the old name does not, then the name change is classified as a "to" name-change event. Similarly, if any of these phrases are dropped in the new name, then the name change is classified as a "from" name-change event.

	Number
Initial number of mutual fund name changes in sample period	15,972
Number of style name changes	935
Number of style name changes for primary share class funds	490
Number of style name changes with available dates	348
Number of style name changes (equity funds only)	332
Number of unique funds	296
	Number
"To" Style name changes:	
To value	88
To growth	68
To small	44
To large	41
"From" style name changes	
From value	20
From growth	60
From small	8
From large	3

**Table II****Characteristics of name-change funds relative to the universe of mutual funds**

Panel A reports the mean and median characteristics for the name-change fund sample and for the universe of all other equity funds, matched on the date of the name change. Since funds are aligned on the name-change months, the lagged values represent the fund characteristics just before the name change. Fund lagged returns are geometric returns computed by compounding one month returns over a N month period. Fund flow is defined, as in Sirri and Tufano (1998), as  $[TNA_t - (1+r_t) TNA_{t-1}] / TNA_{t-1}$ . The Fama-French three-factor alpha is calculated using daily returns over 24 months prior to the date of the name change. If the fund does not have 24 months of data before the name-change month, all available data is used as long as there is at least 2 months of data. The fund age is the number of months that the fund has been in existence up to the event month and is calculated using the FIRST\_DATE variable in the CRSP mutual fund database. The total load is the total of all maximum front, deferred, and redemption fees as a percentage total of loads applied to a fund. The expense ratio (over the calendar year) is the percentage of the total investment that shareholders pay for the mutual fund's operating expenses. The 12b-1 fee is a charge which is deducted from the underlying mutual fund's total assets to cover the cost of distribution and marketing. The value reported is the annual percentage of total assets attributed to this expense as of fiscal year end as reported in the prospectus. These variables are obtained respectively from the TOT\_LOAD, EXPENSES and \_12\_B1 variables in the CRSP mutual fund database. Panel B reports the counts of name change funds sorted into quintiles based on breakpoints obtained from the characteristics of the universe of all equity funds (excluding the name-change funds). For each name change, the quintile breakpoints are determined relative to all other funds on the event date. Quintile 1 is the smallest and 5 the largest. The panel also reports p-values from a  $\chi^2$  one-sample test to test if the characteristics of the mutual funds are uniformly distributed with respect to the universe of funds. Panel C reports load and expense data for the mutual fund sample and the universe of equity mutual funds. The panel also reports p-values for a Mann-Whitney nonparametric test to test the equality of the distribution for the sample and the universe.

Panel A: Mean and median characteristics on the date of the name change

	Name-Change funds		Other funds	
	Mean	Median	Mean	Median
Fund one month lagged return	1.15%	0.75%	0.73%	0.89%
Fund one month lagged total net assets (\$ millions)	299.42	89.53	598.84	68.42
Fund one month lagged flow	-0.47%	-0.52%	1.15%	0.12%
Total one month lagged load	2.24%	0.00%	2.43%	1.00%
One month lagged expenses	1.32%	1.27%	1.54%	1.45%
One month lagged 12b-1 fees	0.18%	0.06%	0.37%	0.25%
Fund return over past six months	9.78%	8.54%	5.55%	5.53%
St dev. of fund returns over past twelve months	5.42%	4.81%	5.21%	4.60%
Mean fund flow over past 6 months	0.00%	-0.27%	1.39%	0.31%
Fama-French 3-factor alpha calculated over past 24 months	-0.11%	-0.12%	0.27%	-0.11%
Fund age in months	107.46	68	72.68	46

Panel B: Counts of name change funds sorted into quintiles based on breakpoints obtained from the characteristics of the universe of all equity funds

	Q1	Q2	Q3	Q4	Q5	P-value
Fund one month lagged return	69	50	55	50	72	0.110
Fund one month lagged total net assets (\$ millions)	39	62	56	87	52	0.000
Fund one month lagged flow	75	78	54	49	40	0.001
Fund return over past six months	46	55	45	68	82	0.002
St dev. of fund returns over past twelve months	35	60	75	68	58	0.003
Mean fund flow over past 6 months	84	65	66	54	27	0.000
Fama-French 3-factor alpha calculated over past 24 months	36	70	64	69	57	0.704
Fund age in months	5	33	61	71	126	0.000

Panel C: Loads and expenses for the name-change mutual funds

	0%	0%<fee≤1%	1%<fee≤2.5%	2.5%<fee≤5%	5%<fee	P-value
<b>Sample funds</b>						
Total one month lagged load	53.72%	2.36%	1.35%	22.30%	20.27%	0.053
One month lagged expenses	0.34%	23.31%	75.00%	1.35%	0.00%	0.000
One month lagged 12b-1 fees	48.65%	51.35%	NA	NA	NA	0.000
<b>Universe of equity mutual funds</b>						
Total one month lagged load	39.55%	11.74%	3.12%	30.89%	14.70%	
One month lagged expenses	0.09%	22.40%	71.15%	6.20%	0.15%	
One month lagged 12b1 fees	40.91%	59.08%	NA	NA	NA	

**Table III****Determinants of mutual fund name changes**

This table reports results for logistic regressions to investigate the characteristics of funds that change their names. Panel A investigates what types of funds choose to change their names. It reports the results of a cross-sectional logistic regression estimated as follows: We assign the name-change fund a dummy of 1, and others 0 and regress this on control variables that proxy for the fund performance, advertising, and other expenses. Explanatory variables are as defined in Table 2. Panel B investigates, only for the sample of name-change mutual funds, at what point in their life cycle do the funds choose to change their names. We report results for a time-series logistic regression broken down into “to” and “from” name changes. We use all the time series data available for each fund and regress the lagged explanatory variables on a dummy equal to one for the name-change month and zero otherwise. P-values are in parentheses.

## Panel A: Cross-sectional logistic regression

Constant	-8.05 (0.00)
Log of fund one month lagged total net assets (\$ millions)	-0.05 (0.44)
Fund one month lagged return	0.00 (0.97)
Fund one month lagged flow	-0.01 (0.39)
Total one month lagged load (%)	0.03 (0.22)
One month lagged expense ratio (%)	-0.04 (0.68)
One month lagged 12b-1 fees (%)	-1.42 (0.00)
Fund return over past six months	0.00 (0.61)
St dev. of fund returns over past twelve months	0.00 (0.87)
Mean fund flow over past 6 months	-0.05 (0.00)
Fama-French 3-factor alpha calculated over past 24 months	-0.67 (0.00)
Log of fund age in months	0.81 (0.00)

Panel B: Time-series logistic regression for name-change funds

	To				From			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Constant	-4.24 (0.00)	-4.22 (0.00)	-3.92 (0.00)	-3.88 (0.00)	-4.12 (0.00)	-4.10 (0.00)	-3.99 (0.00)	-3.90 (0.00)
Log of fund one month lagged total net assets (\$ millions)			-0.27 (0.00)	-0.27 (0.00)			-0.14 (0.32)	-0.14 (0.29)
Fund excess returns over matching fund in past 6 months		0.37 (0.50)		0.35 (0.47)		-0.74 (0.41)		-0.79 (0.40)
St dev. of fund returns over past twelve months			3.96 (0.08)	3.80 (0.09)			2.92 (0.54)	2.13 (0.66)
Mean fund flow over past 6 months	-3.52 (0.00)	-3.47 (0.00)	-3.46 (0.00)	-3.44 (0.00)	-9.30 (0.00)	-9.70 (0.00)	-10.13 (0.00)	-9.84 (0.00)
Fama-French 3-factor alpha calculated over past 24 months	-1.79 (0.88)	-4.70 (0.70)	-0.54 (0.97)	-3.04 (0.78)	5.03 (0.75)	9.03 (0.59)	8.37 (0.55)	12.71 (0.42)
Return to the corresponding style over the past 6 months	1.32 (0.02)	1.27 (0.03)	1.46 (0.01)	1.40 (0.01)	-1.40 (0.08)	-1.32 (0.09)	-1.40 (0.07)	-1.35 (0.09)

**Table IV****Cumulative abnormal flows earned by funds around the name-change period**

This table reports average cumulative abnormal flows to the name-change funds in the year before to the year after the name change. Fund flow is defined as  $[TNA_t - (1+r_t) TNA_{t-1}] / TNA_{t-1}$ . Abnormal fund flows are computed for each name-change fund in our sample with respect to the closest non-name change mutual fund on the basis of its propensity score. Propensity scores are computed as follows: For each event date, we estimate a logistic regression by assigning the dependent variable for each name-change fund a dummy of one, and all other funds zero. We use the following independent variables: the one-month lagged log of total net assets, six-month return to the fund before the name-change month, average fund flow and standard deviation of returns over the six months before the name change, the 12b-1 marketing fees before the name change, the Fama-French three-factor alpha of the fund (calculated using daily data over the two years before the name change), and the log of fund age in months. Panel A reports cumulative abnormal flows to all funds, “hot” style name-change funds and “cold” style name-change funds. Hot style name changes are defined as name changes towards (away from) a particular style when the corresponding style premium is up (down). Cold style name changes are defined as name changes away from (towards) a particular style when the corresponding style premium is up (down). Panel B reports cumulative abnormal flows to “cosmetic” and “non-cosmetic” name changes. A name change is defined as cosmetic (its new name is not an accurate description of its portfolio holdings) if its post-name change beta loading on the appropriate Fama-French factor does not exceed a breakpoint loading. The breakpoints are based on the factor loadings obtained from regressing high and low quintile book-to-market and size portfolios on the daily three-factor model premiums. Panel C reports cumulative abnormal flows for a two-way sort between cosmetic and non-cosmetic funds classified into hot and cold categories. A fund’s name change can result in multiple event classifications (hot/cold or cosmetic/non-cosmetic). Thus, the total number of hot and cold events in panel A, the total cosmetic and non-cosmetic events in panel B, and the sum of events across panels C.1 and C.2 will be greater than the 296 funds in our sample. In each panel, we report t-statistics (in parenthesis) for the null hypothesis that the event window abnormal flow is zero. At the bottom of each panel, we also report t-statistics for tests of the null hypothesis of equality of mean abnormal flows across fund categories.

Panel A: Cumulative abnormal flows for all name changes, hot-style and cold-style name changes

	N	Months					
		-12 to 0	-6 to 0	-3 to 0	0 to 3	0 to 6	0 to 12
All name changes	296	-0.45% (-0.23)	1.21% (0.98)	-0.25% (-0.29)	8.44% (3.58)	12.07% (4.64)	20.17% (6.95)
Hot style name changes	206	0.84% (0.35)	1.73% (1.12)	0.09% (0.08)	12.42% (3.78)	17.05% (4.78)	27.63% (7.06)
Cold style name changes	111	-4.32% (-1.56)	-0.45% (-0.25)	-1.35% (-1.07)	0.47% (0.27)	1.89% (0.84)	3.98% (1.36)
T-test for differences (Hot-Cold)		1.41	0.92	0.87	3.22	3.60	4.84

Panel B: Cumulative abnormal flows for cosmetic vs. non-cosmetic name changes

	N	Months					
		-12 to 0	-6 to 0	-3 to 0	0 to 3	0 to 6	0 to 12
Cosmetic	195	-1.18%	0.48%	-0.21%	9.99%	13.46%	22.84%
		(-0.51)	(0.33)	(-0.19)	(3.16)	(4.02)	(6.23)
Non-cosmetic	115	2.64%	1.89%	-0.80%	9.17%	12.74%	17.31%
		(0.87)	(0.94)	(-0.61)	(1.93)	(2.45)	(3.07)
T-test for differences		-1.01	-0.56	0.35	0.14	0.12	0.82

Panel C.1: Cumulative abnormal flows for “hot style” cosmetic vs. non-cosmetic name changes

	N	Months					
		-12 to 0	-6 to 0	-3 to 0	0 to 3	0 to 6	0 to 12
Cosmetic	157	0.25%	1.33%	0.17%	12.08%	16.10%	27.18%
		(0.10)	(0.80)	(0.14)	(3.13)	(3.95)	(6.14)
Non-cosmetic	52	4.81%	1.43%	-1.18%	21.77%	27.96%	35.29%
		(0.90)	(0.40)	(-0.51)	(2.15)	(2.58)	(3.09)
T-test for differences		-0.77	-0.03	0.52	-0.90	-1.03	-0.66

Panel C.2: Cumulative abnormal flows for “cold style” cosmetic vs. non-cosmetic name changes

	N	Months					
		-12 to 0	-6 to 0	-3 to 0	0 to 3	0 to 6	0 to 12
Cosmetic	44	-7.90%	-3.64%	-2.37%	0.97%	1.78%	4.24%
		(-1.77)	(-1.24)	(-1.04)	(0.41)	(0.61)	(1.08)
Non-cosmetic	66	-0.42%	1.22%	-0.77%	-0.73%	1.10%	2.93%
		(-0.12)	(0.55)	(-0.52)	(-0.36)	(0.38)	(0.75)
T-test for differences		-1.33	-1.32	-0.59	0.54	0.17	0.24

**Table V**

**Determinants of abnormal flows to name-change funds**

Post-name change cumulative abnormal flows in the three months after the name change are regressed on a hot style dummy (defined as 1 if the name changes towards (away from) a particular style when the corresponding style premium is up (down) and 0 otherwise), a cosmetic dummy (defined as 1 if a fund's new name accurately reflects its holdings, 0 otherwise), a "to" style dummy (defined as 1 if the move is to a particular style and zero otherwise), the decile ranking of the name change fund's daily Fama-French three-factor alpha calculated over months -24 to -1 before the name change relative to the universe of all equity funds, the decile ranking of the name change fund's 3-month return from months -3 to -1 before the name change relative to the universe of all equity funds, the cumulative abnormal flow over the matching fund from months -3 to -1, changes in 12b-1 fees, total load and expense ratios between the three months before to the three months after the name change, the mean log of total net assets over months -3 to -1, an interactive term between the hot style dummy and the change in 12b-1 fees, an interactive term between the cosmetic dummy and the change in 12b-1 fees, the log of fund age in months, a continuous cosmetic measure (the absolute value of the appropriate post-name change HML or SMB loading), and a change-in-holdings measure (the squared difference on the appropriate pre and post SMB or HML loadings). Fund flow is defined as  $[TNA_t - (1+r_t) TNA_{t-1}] / TNA_{t-1}$ . Abnormal flows are calculated with respect to the closest mutual fund on the basis of its propensity score. P-values are reported in parentheses.

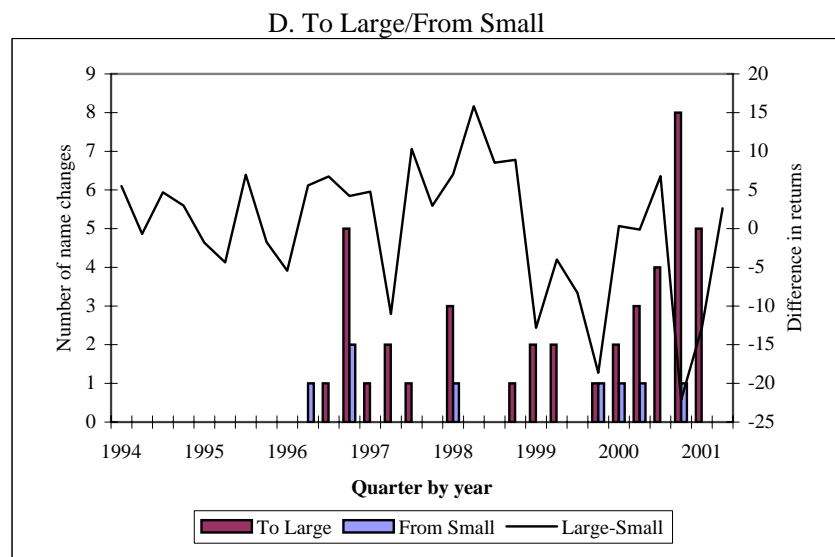
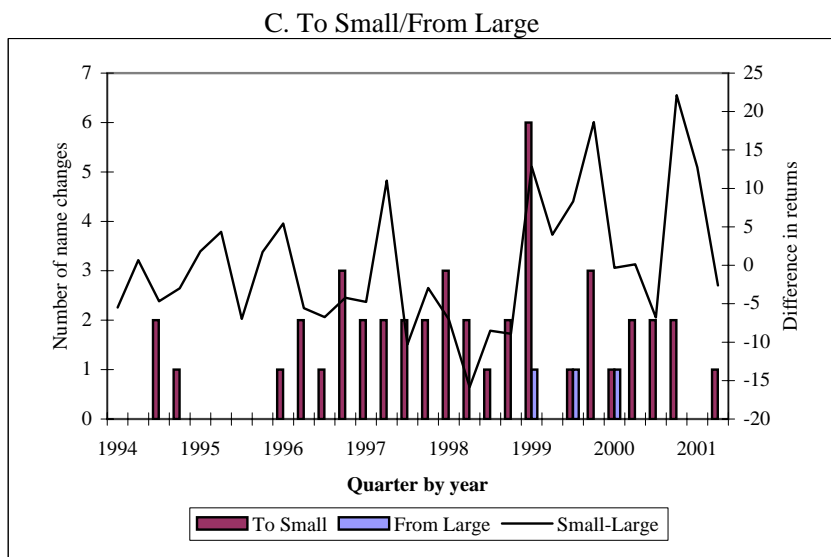
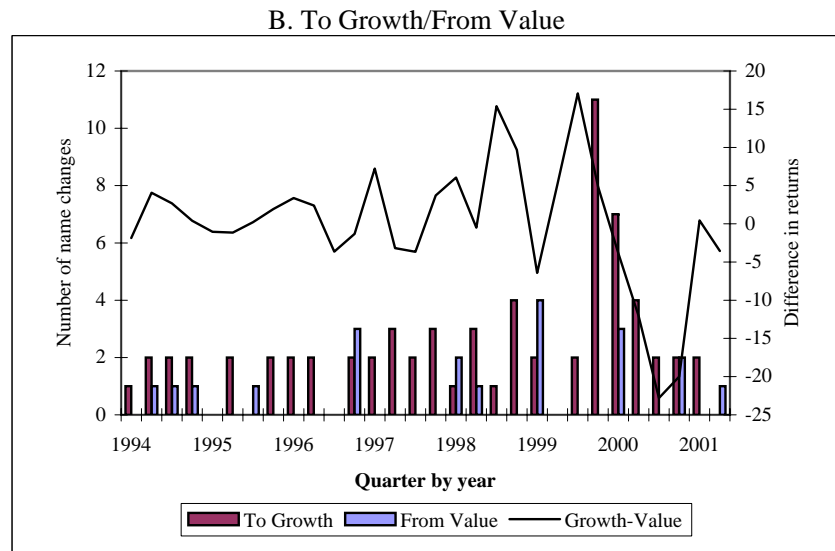
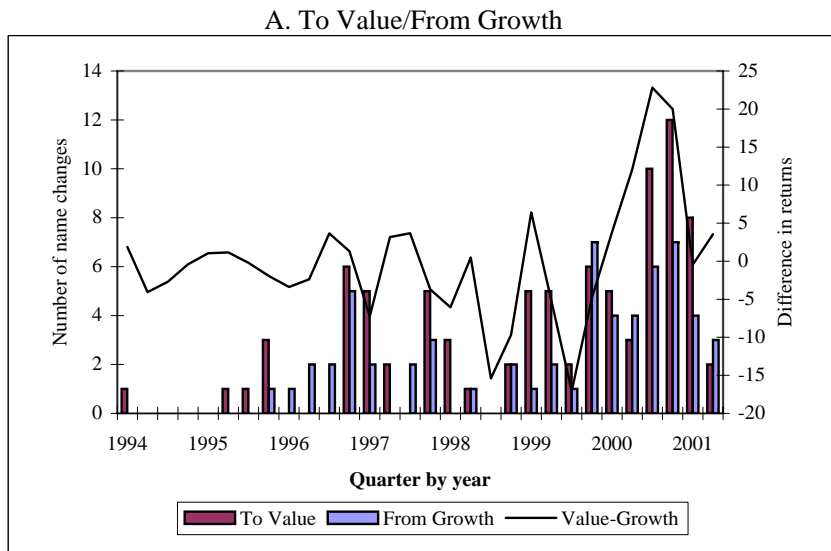
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Constant	0.35 (0.00)	0.35 (0.00)	0.30 (0.00)	0.27 (0.00)	0.26 (0.00)	0.29 (0.00)	0.25 (0.00)	0.26 (0.05)	0.30 (0.04)	0.29 (0.03)
Hot style dummy	0.13 (0.01)	0.13 (0.02)	0.13 (0.02)	0.13 (0.01)	0.13 (0.01)	0.15 (0.01)	0.14 (0.01)	0.14 (0.01)	0.15 (0.01)	0.15 (0.01)
Cosmetic dummy		0.01 (0.88)	0.01 (0.85)	-0.01 (0.85)	-0.02 (0.73)	0.05 (0.56)	0.06 (0.48)	0.06 (0.48)		
To style dummy						-0.09 (0.33)	-0.09 (0.33)	-0.09 (0.33)	-0.05 (0.71)	-0.09 (0.33)
Fama-French 3-factor alpha <sub>-24 to -1 months</sub> Decile			0.01 (0.14)	0.02 (0.05)	0.02 (0.03)	0.02 (0.04)	0.02 (0.08)	0.02 (0.08)	0.02 (0.04)	0.02 (0.05)
Fund 3-Month Return <sub>-3 to -1 months</sub> Decile						0.00 (0.74)	0.00 (0.85)	0.00 (0.84)	0.00 (0.81)	0.00 (0.74)
Cumulative Abnormal Flow <sub>-3 to -1 months</sub>						0.09 (0.50)	0.07 (0.61)	0.07 (0.63)	0.08 (0.59)	0.09 (0.51)
Mean log(TNA) <sub>-3 to -1 months</sub>	-0.08 (0.00)	-0.08 (0.00)	-0.08 (0.00)	-0.08 (0.00)	-0.08 (0.00)	-0.08 (0.00)	-0.07 (0.00)	2.09 (0.11)	-0.08 (0.00)	-0.08 (0.00)
Change in 12b-1 fees <sub>-3 to -1, 0 to 2 months</sub>				4.87 (0.00)	5.10 (0.00)	5.12 (0.00)	2.09 (0.11)	-0.02 (0.82)	5.14 (0.00)	5.12 (0.00)
Change in total load <sub>-3 to -1, 0 to 2 months</sub>					-0.14 (0.19)	-0.13 (0.22)	-0.02 (0.82)	-0.36 (0.17)	-0.14 (0.19)	-0.13 (0.22)
Change in expense ratio <sub>-3 to -1, 0 to 2 months</sub>					-0.59 (0.02)	-0.59 (0.02)	-0.36 (0.16)	-0.07 (0.00)	-0.59 (0.02)	-0.59 (0.02)
Hot style dummy × change in 12b-1 fees							6.79 (0.00)	6.80 (0.00)		

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Cosmetic dummy × change in 12b-1 fees							-0.83 (0.69)	-0.84 (0.69)		
Log of fund age in months								0.00 (0.92)	-0.01 (0.83)	0.00 (0.98)
Cosmetic Measure									0.00 (0.96)	
Change-in-Holdings										0.05 (0.56)
Adjusted R <sup>2</sup>	10.20%	9.90%	10.30%	21.20%	22.70%	22.30%	26.00%	25.80%	22.00%	22.10%

**Table VI****Average change in fund characteristics around the name change**

This table reports the average monthly change in characteristics to mutual funds that change their names in the year before to the year after the name change. Fund flow is defined as  $[TNA_t - (1+r_t) TNA_{t-1}] / TNA_{t-1}$ . Abnormal flows are calculated with respect to the closest mutual fund on the basis of its propensity score. The total load is the total of all maximum front, deferred, and redemption fees as a percentage total of loads applied to a fund. The expense ratio (over the calendar year) is the percentage of the total investment that shareholders pay for the mutual fund's operating expenses. The 12b-1 fee is a charge which is deducted from the underlying mutual fund's total assets to cover the cost of distribution and marketing. The value reported is the annual percentage of total assets attributed to this expense as of fiscal year end as reported in the prospectus. These variables are obtained respectively from the TOT\_LOAD, EXPENSES and \_12\_B1 variables in the CRSP mutual fund database. The Fama-French three-factor alpha is calculated using daily returns over 24 months prior to the date of the name change to 24 months after the name-change date.

	All			Hot style			Cold style		
	Before	After	Paired t	Before	After	Paired t	Before	After	Paired t
Abnormal Flows over matching fund	0.01%	1.65%	4.26	0.03%	2.28%	4.41	-0.21%	0.33%	1.22
Fama-French 3-factor alpha	-0.08%	-0.19%	-1.48	-0.11%	-0.23%	-1.45	-0.09%	-0.09%	-0.09
Monthly raw returns to the fund	1.34%	0.43%	-5.63	1.42%	0.33%	-5.81	1.28%	0.51%	-2.89
Monthly excess returns over matching fund	0.12%	0.05%	-0.37	0.25%	0.01%	-1.20	-0.11%	0.08%	0.66
Total net assets	286.16	311.20	0.40	293.93	310.71	0.24	260.65	299.50	0.39
Total load	2.22%	2.33%	0.48	2.19%	2.32%	0.51	2.41%	2.43%	0.06
Total expenses	1.34%	1.32%	-0.40	1.32%	1.29%	-0.52	1.38%	1.38%	-0.03
12b-1 fees	0.18%	0.18%	0.09	0.16%	0.17%	0.21	0.20%	0.20%	-0.03



**Figure 1. Mutual fund name changes by category**

Each panel plots the number of name changes towards a particular category and away from the opposite category. The panel also plots the 3-month lagged difference in returns between the category to which and the category away from which the name change occurs.