Performance Isn't Everything: Personal Characteristics and Career Outcomes of Mutual Fund Managers

Brad Barber[1] Anna Scherbina[2] Bernd Schlusche[3]

ABSTRACT

We assess mutual fund manager career outcomes. We find that, although career outcomes are largely determined by past performance, measured by returns and fund flows, personal attributes also factor in. All else equal, female managers are less likely to be promoted and have shorter tenures than male fund managers. This finding applies to a greater extent to women who co-manage funds with other managers, which suggests that working in teams negatively affects women's careers when compared to men's. Moreover, we show that, all else equal, younger managers, U.S.-educated managers, and managers who attended elite schools experience better career outcomes than otherwise similar managers.

JEL classification: G11, G14, G23.

Keywords: Women in Finance, Diversity, Career Advancement, Mutual Fund Industry, Mutual Fund Managers, Mutual Fund Manager Performance

[1]Graduate School of Management, University of California, Davis, One Shields Avenue, Davis, CA 95616, USA. E-mail: bmbarber@ucdavis.edu. Phone: (530) 752-0512

[2]Graduate School of Management, University of California, Davis, One Shields Avenue, Davis, CA 95616, USA. E-mail: ascherbina@ucdavis.edu. Phone: (530) 752-7658

[3]Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue NW, Washington, DC 20551. E-mail: bernd.schlusche@frb.gov. Phone: (202) 452-2591

The views expressed in this paper are those of the authors and not necessarily those of the Board of Governors, other members of its staff, or the Federal Reserve System. We thank seminar participants at HEC Paris, INSEAD, Hanken School of Economics, the economics department of Johns Hopkins University, UC Davis, and George Mason University Schar School of Policy and Government for their helpful comments.

Performance Isn't Everything: Personal Characteristics and Career Outcomes of Mutual Fund Managers

ABSTRACT

We assess mutual fund manager career outcomes. We find that, although career outcomes are largely determined by past performance, measured by returns and fund flows, personal attributes also factor in. All else equal, female managers are less likely to be promoted and have shorter tenures than male fund managers. This finding applies to a greater extent to women who co-manage funds with other managers, which suggests that working in teams negatively affects women's careers when compared to men's. Moreover, we show that, all else equal, younger managers, U.S.-educated managers, and managers who attended elite schools experience better career outcomes than otherwise similar managers.

JEL classification: G11, G14, G23.

Keywords: Women in Finance, Diversity, Career Advancement, Mutual Fund Industry, Mutual Fund Managers, Mutual Fund Manager Performance

I. Introduction

Hiring and promoting employees solely based on merit should be the goal of any performance-oriented organization. However, an organization's management must exercise some degree of judgement—for example whether good performance should be attributed to skill or luck—and, therefore, various conscious and subconscious biases may affect personnel decisions.[1] If certain employee groups are underrepresented in the workplace, the management may view employees from these groups as inherently less skilled. Good performance of these minority employees would then be more likely to be attributed to good luck, and bad performance to low skill. Moreover, when responsibility is shared, management may disproportionately attribute credit to the employees from the majority group. Indeed, research in economics and organizational behavior documents lower salaries, worse marketplace outcomes, and more negative workplace attitudes towards women, minorities, and older people.

In this paper, we conduct a large-scale study of promotion and demotion decisions made within competitive organizations using actual rather than self-reported data. Conducting such a study and drawing causal inference is only feasible with an appropriate setting at the researcher's disposal. Being able to observe and measure individual employee performance is a necessary condition, but, due to a lack of available micro data, suitable settings are scarce. In our study, we focus on the mutual fund industry, which offers an ideal setting to analyze the influence of personal attributes on career progression because the performance of individual mutual fund managers is easily measurable. Mutual fund families care about returns and fund flows generated by managers because both increase the value of total net assets (TNA) under management, and fund families collect fees calculated as a percent of TNA.

In its analysis of the influence of personal attributes on career progression, this paper contributes to the literature on workplace discrimination, which is summarized in more detail in Section II. The empirical documentation of the so-called gender pay gap—the fact that women earn on average

[1] Psychology research provides ample evidence that people are often unaware of the biased views they hold, which results in subconsciously biased decisions.

about 20% less than men—has garnered considerable attention from researchers and policy makers. The pay gap is largely explained by women's tendency to work in lower-paying fields. Finance is one of the highest paying fields, but women in finance are grossly underrepresented, and the trends are not encouraging. We present statistics showing that, while the fraction of women in the money management industry was rising in the 1990s, the trend changed around the burst of the dot-com bubble, and the percentage of women working as mutual fund managers declined from a peak of 13.83% in August 1999 to 9.78% in December 2016, the end of our sample period.

Our study of fund managers' characteristics and their effects on career progression offers a variety of new insights into the relation between gender and career outcomes. To begin, we address the question of why there are so few women entering the money management industry. At least part of the answer lies in ingrained cultural attitudes towards women's equality. Ranking the countries of managers' origin by the fraction of female managers from that country, we show that a country's female representation rank is related to its 2016 Global Gender Gap Index produced by World Economic Forum. This result suggests that there is some degree of self-selection of women into the finance industry: within the multicultural landscape of the United States, women who hail from the more patriarchal cultures are less likely to consider entering the industry.

Next, we investigate whether or not female managers are treated fairly once they have become money managers. We present evidence that once a woman becomes a mutual fund manager, she typically has a significantly shorter tenure in the industry than a male manager, that is, she is significantly more likely to permanently leave the industry in any given month, while being under 55 years old or, if age information is missing, having less than 25 years of fund management experience. We find no evidence that the disproportional departures of female fund managers are related to poor performance. In fact, when analyzing in detail the performance of sole managers of active equity funds, we find no significant difference between the performance of male and female fund managers, in terms of both returns and fund flows. Moreover, female managers' returns are less volatile than the returns of other funds in the same investment category.

Part of the reason why female managers leave the industry is that they typically have fewer fund management responsibilities than their male counterparts. When a male manager loses one fund, perhaps due to fund closure, he may be managing another fund in parallel, and so he remains in the industry. In contrast, when a female manager loses a fund, she is less likely to be managing another fund at the same time, and she ends up leaving the industry. Yet, controlling for the number of funds and the total net value of the assets that a manager manages does not fully explain the tendency of female managers to leave the industry before retirement age.

A related question is whether female managers face the same career prospects as male managers. We conduct a detailed analysis of fund managers' career outcomes. To that end, we consider a promotion to be a change in fund assignments that results in more fund management responsibilities and a demotion, a changes in fund assignments that results in fewer responsibilities. We find that female managers tend to have worse career trajectories than male managers in similar circumstances, even after controlling for performance and fund management responsibilities.

One may argue that female managers make a deliberate choice not to be promoted or to leave the industry due to family conflicts. This conjecture is not supported by the data. The higher likelihood of prematurely leaving the industry and the lower odds of being promoted compared to men affects women across the age spectrum, and not only women of childbearing age.

Another plausible hypothesis for why female managers tend to have fewer fund management responsibilities is that they have gaps in their careers to accommodate family responsibilities. However, we do not find that the probability of a career gap or the length of a career gap are statistically different between men and women. A related conjecture is that female managers perhaps do not intend to leave their jobs permanently but then face more obstacles than men rejoining the field following an employment gap. Unfortunately, it is impossible to test this conjecture given the data limitations.

We also present a number of noteworthy findings on the relation between managers' characteristics, other than gender, and their career outcomes. In particular, we analyze the influence of the attributes that have been associated with workplace discrimination, such as age, foreign origin, ter-

minal degree, and a dummy variable indicating whether a manager attended an elite school. These variables can be identified from the Morningstar dataset of managers' characteristics that provides a managers' names, degrees, schools attended, dates of birth, dates of graduation, and the dates on which each manager started (and finished, if applicable) managing each fund.

One strong and consistent result emerges. Older managers have significantly worse chances of being promoted and significantly higher chances of being demoted than younger managers with similar job responsibilities and similar past performance. While it is possible that older managers voluntarily diminish their job responsibilities, it is clearly not in the interest of mutual fund families to under-employ skilled managers.

Our results also show that managers who attended elite schools are promoted faster than otherwise similar managers from non-elite schools. It also appears that foreign-born managers have lower chances of being promoted. Part of the reason, perhaps, is that foreign managers have smaller professional networks. Consistently, we show that following fund family mergers or closures, foreign managers are significantly less likely to find a new job in the industry.

Of course, the analysis of managers' career outcomes based on the entire sample can not perfectly control for subtle differences in managers' track records or for minor distinctions between the types of funds that they manage. As a result, our results may biased. However, the advantage of the mutual fund setting is that it allows us to set up a perfect experiment in which we can compare male and female managers with identical track records and thereby rule out possible estimation biases. This experiment indeed confirms the insights gained from the complete dataset of mutual fund managers. In this test, we focus on co-managers of the same fund, who have no prior fund management history and who started to co-manage the fund in the same month. We then track what happens to these managers next. We find that, consistent with our full-sample results, female managers are significantly more likely than male managers to be removed from (or leave) the job of co-managing the fund without any substitute fund management responsibilities.

To sum up, our paper shows that women are severely underrepresented in the mutual fund industry and that the fraction of women managers has been decreasing in recent years. We show

that women exhibit some self-selection into the money management field based on their cultural backgrounds. But even women who are fund managers face bleaker career prospects. They are at a higher risk than men of prematurely leaving the industry before retirement age and have lower chances of promotion, and the worse career prospects affect female fund managers of all ages, which suggests that family conflicts are not the likely reason for this pattern. Women co-managers do worse in their careers than women sole managers, suggesting that women get less credit in teams. We also show that managers who went to top schools have better career outcomes than other managers who have exhibited similar past performance and have comparable fund management responsibilities, while foreign-born managers experience worse career outcomes.

The rest of the paper is organized as follows: Section II reviews related literature. Section III describes the data and variable construction. Section IV presents the empirical results. Section V concludes.

II. Related literature

A. Literature on workplace discrimination

Prior literature in economics documents that women and minorities have worse marketplace outcomes than males and whites and analyzes whether the effect can be explained by performance differences or by discrimination. The literature on discrimination distinguishes between statistical and taste-based discrimination. Statistical discrimination arises when an individual is judged based on her group characteristics rather than on her individual characteristics. This mental shortcut is used in decision making when information about an individual or mental resources are scarce. Taste-based discrimination arises when employers, superiors, other employees, or customers have "tastes" for discrimination; that is, they prefer one group over another based on tastes rather than any economic rationale, perhaps even to a monetary detriment to themselves.

In a prominent study in the literature on workplace discrimination against racial minorities, Bertrand and Mullainathan (2004) set up a field experiment to document a bias held by hiring managers against African Americans in hiring decisions. The authors sent out fictitious resumes in response to job postings in Boston and Chicago area newspapers, randomly using African American-sounding names in a subset of resumes and found that these resumes received 50% fewer call-backs. Beginning with an influential analysis by Scully (1974), a number of papers in economics document racial discrimination in major league baseball against African American and Latino players, which manifests itself in pay differences and in hiring biases (e.g., Christiano (1986) and Palmer and King (2006)). (Baseball is largely an individual sport, and thus offers an opportunity to measure the performance of each individual player and thereby to observe whether discrimination exists.) Racial discrimination also appears to exist at higher educational levels. Ginther, Schaffer, Schnell, Masimore, Liu, Haak, and Kington (2011) analyze the relation between the U.S. National Institutes of Health (NIH) R01 applicants' self-identified race or ethnicity and the probability of receiving an award and find that African Americans and Asians are less likely to receive NIH investigator-initiated research funding than whites.

Several papers document adverse workplace outcomes for female workers. Goldin and Rouse (2000) describe that many prominent symphony orchestra conductors used to be biased against hiring female musicians and, as a result, female musicians used to be severely under-represented in symphony orchestras. The paper shows that the adoption of "blind" auditions, in which the musician auditioning for a spot in an orchestra was obscured from the jury by a screen, increased the odds that female musicians would get to advanced rounds of auditions and eventually be hired by orchestras. Ginther and Kahn (2005) investigate whether gender plays a role in academic careers in sciences; the science field is subdivided into Science, Life Science, Physical Science, and Engineering. The paper finds that females are less likely than males to get tenure track appointments. Specifically, after controlling for productivity, measured as the combination of the amount of government support received, the total number of papers, and the total number of publications, female scientists are less likely to get tenure in Life Sciences and less likely to be promoted to full professor in Science and Life Science than their male peers. Ginther and Hayes (2003) focus on

academic careers in social sciences and humanities and find that female faculty are less likely to be promoted and have lower salaries than their male peers. The salary gap increases throughout the career procession, and at the full professor level a 12% unexplained salary difference between male and female faculty is observed.

Bertrand, Goldin, and Katz (2010) also observe a salary gap between male and female University of Chicago MBA graduates that increases with the number of years since graduation. They find this salary gap by analyzing salaries, work history and work hours, all of which are self-reported in a web-based survey by the Chicago MBA 1990-2006 graduating classes. Some of the salary gap is explained by females working shorter hours and having had gaps in employment, as well as having taken fewer finance classes and having earned somewhat lower GPAs in the MBA program. Still, some of the salary gap remains unexplained.

In a paper closely related to our study, Azmat and Ferrer (forthcoming) use self-reported survey data on young lawyers to study the pay and promotion gap between male and female lawyers.[2] They find substantial differences in performance, both in terms of hours billed to clients and the amount of new client revenue generated, and show that these differences explain almost 50% of the pay and promotion gaps. Moreover, the paper finds that female lawyers have more modest aspirations for becoming an equity partner. The paper also documents a larger performance gap for female lawyers who have young children, while male lawyers with young children do not exhibit worse performance. The paper provides additional evidence that childbearing is the cause of lower performance rather than self-selection into motherhood.

Sarsons (2017) documents that, when it comes to tenure decisions, female economics professors get less credit for published papers that are co-authored with male colleagues than male professors. This finding suggests that in a team environment, female employees get less credit for good performance.

[2]The dataset used in the paper is called *After the JD*, which is a survey-based dataset produced by the American Bar Association and other legal associations. Lawyers in the sample are representative of all lawyers first admitted to the bar in 2000.

Some studies in the literature aim to identify which form of discrimination is at play. For example, List (2004) conducts an experiment in which groups of young white males, young white females, young nonwhite males and white males over age 60 are sent out to buy a particular sportscard at a sportscard show. In this experiment, minority groups (which are all but the first group of negotiators) receive worse initial and final offers. Subsequent analysis reveals that this effect is likely explained by statistical rather than taste-based discrimination of sportscard dealers.

More evidence is accumulating on age discrimination in the workplace. Lahey (2008) conducts a field experiment to show that otherwise similarly qualified older workers have a more difficult time obtaining job interviews. The author sent out fictitious resumes in the greater Boston, Massachusetts and greater St. Petersburg, Florida areas in response to "help-wanted ads" in the Sunday Boston Globe and the Sunday St. Petersburg Times, as well as to randomly chosen firms in each city. High school graduation dates were randomized to create different ages of the job applicants. The older group of fictitious job applicants (those aged 50, 55, and 62) received more than 40 percent fewer callbacks with positive responses from the prospective employers than fictitious applicants aged 35 and 45. The paper finds no support for taste-based discrimination as a reason for this differential, and some suggestive evidence in support of statistical discrimination.

The literature in organizational behavior documents negative workplace attitudes towards certain employee groups (such as women and older workers) predominately based on survey evidence. In particular, a recent study uses survey evidence to document biases held by heterosexual men married to homemakers against their female colleagues (Desai, Chugh, and Brief (2014)). The paper presents some evidence that causality may go from the marriage type to the man's attitude towards working women. High-paying fields such as finance have low percentages of women. Since finance salaries are high, perhaps men in finance are more likely to have traditional marriages, and the men's attitudes may be detrimental to women's career prospects.

B. Literature on mutual fund managers career outcomes

Given its focus on mutual funds managers, our study is also related to the relatively small number of papers on the determinants of career outcomes of mutual fund managers. Khorana (1996), one of the earliest papers in this literature, studies 339 replacements of mutual fund managers over the 1979-1992 time period. He finds that the probability of a managerial replacement is negatively related to the current and previous years' returns.

Chevalier and Ellison (1999) examine promotion and termination decisions of mutual fund managers over the 1992-1994 period. They only consider sole managers of growth or growth and income funds. The dataset consists of 1,320 manager-fund-year observations and contains only 242 terminations and 38 promotions. The authors find that manager terminations are sensitive to fund alphas and that this sensitivity is higher for younger managers. The authors find no significant relation between past fund returns and manager promotion decisions.

Hu, Hall, and Harvey (2000) study 307 managerial changes over the 1976-1996 time period. They find that promotions are positively and demotions are negatively associated with performance and that fund flows are not a significant predictor of either.

Finally, for a sample of U.S. equity funds over the period 1995-2002, Evans (2009) finds that fund return alphas are significant predictors of manager promotions and demotions, but fund flows are not.

Our contribution to this literature is to use a larger dataset, in both the time series and the cross-section. Our main dataset covers the period from January 1992 (this is the month when fund returns become available from the monthly CRSP Mutual Fund dataset) to December 2016 and includes 929,946 manager-month observations and 12,669 unique managers. As mentioned earlier, in addition to fund returns and fund flows, as well as other common controls, we include a set of managers' personal attributes that may factor into their career outcomes. We only consider managers of actively-managed mutual funds, and we also consider separately sole managers, co-managers, and managers of active mainstream domestic equity funds. Fund flows and CAPM alphas are ranked

within funds' investment objective categories. When a managers manages several funds at the same time, the ranks are weighted by the TNA assigned to the manager. Moreover, we take into account the trends affecting investment categories, as these trends may have an independent effect on managers' career trajectories. We confirm the earlier findings that managers' career outcomes are strongly related to their past returns. Unlike that literature, we also document a strong relation between career outcomes and fund flows. This result is not surprising given the finding of Lamont and Frazzini (2008) that fund families create more funds in the investment categories that enjoy high levels of investor sentiment and likely assign the managers who already manage similar funds to manage additional funds in the high-sentiment category.

III. Data and variable construction

A. Datasets

The data on managers' background and career trajectory are obtained from Morningstar. The data for mutual fund monthly returns and TNAs are obtained from the CRSP Mutual Fund dataset. The monthly data in the CRSP dataset start in January 1992 and end in December 2016, which dictates the start and the end of our sample for the main tests. For the tests that do not involve the CRSP dataset, we use the entire Morningstar dataset, covering the period from July 1924 to March 2017, although the earlier years have only few managers and funds.

The Morningstar dataset that we obtained consists of three files. The first file provides the managers' background information: first and last names, gender, date of birth, names of each school attended for each of the degrees earned (Bachelor, MBA, MA, PhD, and a category called "Other degree" that likely includes J.D. and M.D.), dates of graduation for each degree that is applicable, as well as an indicator of whether or not the manager holds a CFA certificate. We create a dummy for top schools that equals one if a manager earned at least one of his/her degrees from any university or college ranked in the top 10 based on their selectiveness in 2013, as well as all

top-ten MBA programs and all Ivy League schools.[3] This file contains 20,840 unique manager observations, though we are not using all of them in the main tests because of the sample period constraints.

The gender information is available for the vast majority of managers. When the gender field is missing, we identify a manager's gender from the first name, and if it is ambiguous, from the managers' LinkedIn or professional profiles or from fund reports and other material available on the Internet. In the end, we are unable to identify the gender of only one manager.

To calculate a manager's age, we use the birth date. When it is not available, we assume that managers are 22 when they are awarded their undergraduate degrees (as in Chevalier and Ellison (1999)). If the year of the undergraduate degree is missing, we use the years when other degrees were awarded, assuming that managers are 26 when awarded an MBA, MA or Other degree, and 29 when they were awarded a Ph.D. Because the graduation year information is often missing, just as the birth year information, we are able to identify age for only 33.29% of managers. For this reason, we present results based on the time a manager was employed in industry, which is available for all managers and should be highly correlated with age.

We identify managers' country of origin based on the location of the school from which they received their undergraduate degree. We then create a dummy variable indicating that the manager attended a foreign school, which we interpret to indicate that the manager is of foreign origin. (Managers who attended a Canadian school are not considered to be of foreign origin.) However, the dummy *foreign* is only defined for managers with non-missing the school information. In the original sample of 20,840 managers, 67.76% of managers have school information available. In some tests, in order to increase the sample size, we use a dummy variable *foreign+guess* that is set to one if a manager is of foreign origin based on school data or if the school information is missing but both first and last name are of a non-Anglo-Saxon origin, and to zero otherwise.

The second Morningstar file provides for each manager, identified with a unique manager code, all his or her present or historical manager-fund assignments and the exact dates when the manager

[3]Top ten lists typically include more than 10 schools.

started and finished (if applicable) managing each fund. Each fund is identified with a unique identifier, FUNDID. A missing end date of a fund assignment means that the manager is still employed in the fund as of March 2017, the end of our sample period. We use this file to match a manager to the funds s/he manages at each point in time. This file is also used to identify the number of co-managers that a fund has on any particular date, with a co-managed fund being a fund that has more than one manager employed in a given month.[4]

The third Morningstar file provides mutual-fund-specific information, including FUNDID; fund name; fund family; investment objective category; fund ticker; fund CUSIP; inception date; the end date of fund operation, if applicable; fund status (active, closed, merged); and the reason for obsolescence, if applicable.

In some tests, we use our own fund categorization, rather than the categorization provided by Morningstar. To that end, we perform keyword searches of fund names and investment categories in the third Morningstar file to identify index funds, socially responsible and tax-managed funds, real estate funds, metals and commodities funds, utilities funds, international funds, corporate bond funds, and government and municipal bond funds.[5]

According to the business press, managers of index funds are paid substantially less than managers of actively-managed funds. Moreover, index funds represent an entirely different employment category than actively-managed funds, as managers typically do not move from actively-managed funds to index funds, and vice versa. We, therefore, exclude index fund managers from our analysis.

The CRSP Mutual Fund dataset contains data on funds' monthly returns and total net assets (TNA), organized by a unique fund identifier called FUNDNO. The CRSP Mutual Fund dataset and Morningstar are merged on fund ticker or on fund CUSIP, if ticker is missing.

[4]The information on the number and identities of managers for each co-managed fund is more precise than the information available in the CRSP mutual fund dataset, which does not identify manager changes precisely and frequently codes co-managed funds as "team-managed" without providing details on the identities of the managers.

[5]For example, we identify index funds by searching fund names for the keywords "index," "ishares," "S&P," "100," "500," "1500," "3000," with variations in the spelling, and socially responsible and tax-managed funds with variations of the keywords "social," "soc aware", "responsible," "clean env," "catholic," and "tax."

B. Variable construction

B.1. Manager-level performance measures

For each mutual fund manager, we construct monthly performance measures based on the fund return and the fund flow calculated over a rolling 12-month window.

We calculate monthly fund flows as the change in a fund's TNA, relative to that in the prior month, that is unexplained by the fund's return (ret):

$$Fundflow_t = \frac{TNA_t - TNA_{t-1}(1+ret_t)}{TNA_{t-1}} \tag{1}$$

For each fund-month observation, we further compute CAPM alphas, fund flows, and return standard deviations realized over a rolling 12-month period.

Since fund returns and fund flows are expected to differ across fund categories, we then rank each fund's CAPM alpha and fund flow, estimated as described above, from 1 to 10 within each investment objective code. We only consider sufficiently populous investment objective codes that have at least ten funds in a given month. If the number of funds within an investment objective code in a particular month is less than ten, we set the return and fund flow ranks as missing.

If a manager manages more than one fund in parallel, we aggregate the manager's performance measures across the funds that s/he manages. If all funds that a manager manages are sole-managed funds, we simply average the return and fund flow ranks across the funds. For co-managed funds, the funds' return and fund flow ranks are weighted by $\frac{1}{number\ of\ co\text{-}managers}$. For example, if a manager is a sole manager of fund A and one of two co-managers of fund B, fund A will be weighted by $\frac{1}{1+1/2}$ and fund B by $\frac{1/2}{1+1/2}$. We have also tried equal-weighting the performance ranks across all managed funds. Although thus-weighted measures are statistically and economically very similar to the ones described above, they work slightly worse in explaining managers' career outcomes.

B.2. Identifying firings, promotions, and demotions

Money managers earn very high salaries, and, as per our conversations with money managers, many choose to retire before they reach the official retirement age of 65. Accordingly, in this paper, we assume that if a manager permanently leaves the fund management industry and is over 55 years or, if age information is missing, has over 25 years of fund management experience, the departure is voluntarily.[6] Otherwise, a manager's permanent departure from the industry is assumed a firing.[7]

When considering the entire career trajectory, we check, each month, for promotions and demotions as follows: First, we calculate his fund management assignments as the number of funds that a manager manages in a given month. If a manager co-manages a fund, we calculate the fraction of the fund managed as $\frac{1}{number\ of\ co\text{-}managers}$. Thus, if a given manager sole-manages fund A and co-manages fund B with one other manager, we calculate the number of funds managed by that managers as 1.5. Of note, when a manager leaves a fund in a particular month, we check whether the manager was assigned another fund or multiple other funds to sole-manage or co-manage not only in that month but also one month before or one month after the event. Likewise, when a managers starts to manage a new fund, we check whether a manages has left a previously managed fund one month before or one month after the event. Second, we compute the change in fund management assignments as the change in the number of funds managed by the manager scaled by the number of funds managed in the previous month. A positive (negative) figure for the change in fund management assignments indicates a promotion (demotion). In the example above, if a manager left the sole-managed fund and gained no additional funds to manage, the scaled change in the funds managed is $\frac{-1}{1.5} = -0.67$ and the career change considered a demotion. Alternatively, if a manager gained a fund co-managed with two other managers and lost none of the previously managed funds, the "growth" in fund management assignments is $\frac{+1/3}{1.5} = 0.22$, and the career change considered a promotion. When a managed is fired, s/he loses all managed funds and the change in

[6] As we will discuss later in the paper (Table II, Panel C), managers get their first fund management job at 32 years of age, on average.

[7] In unreported robustness checks, we consider alternative thresholds for retirement: (1) being 65 years of age or having over 35 years of fund management experience; (2) being 60 years of age or having over 30 years of fund management experience; and (3) being 55 years of age or having over 20 years of fund management experience. These robustness checks produce very similar results.

the fund management assignment is equal -1. However, as mentioned above, when a manager is past the retirement threshold, we assume that no demotion has occurred. In months in which no changes in fund management assignments has occurred, we set the change in fund management assignment variable to zero.

C. Sample description

Table I reports the fraction of female managers for each country of origin as well as the total number of managers from that country for the sample of all managers that have school information available in the dataset. Furthermore, the table ranks countries based on the female representation in the money management industry, assigning rank 1 (10) to the country with the largest (smallest) fraction of female managers, and reports country gender gap ranks obtained from the 2016 Global Gender Gap Index compiled by the World Economic Forum.[8] For all countries present in the Morningstar dataset, the table reprints the comprehensive country index and four subindices based on (1) economic participation and opportunity; (2) educational attainment; (3) health and survival; and (4) political empowerment. Rank 1 is the country with the lowest gender gap (highest level of equality), while the last rank is held by the country with the highest gender gap (highest level of inequality).

As shown in Table I, a large number of countries have zero female managers in the Morningstar dataset. Moreover, the table shows suggestive evidence that countries with worse gender gap ranks have a lower fraction of women in the mutual fund industry. This evidenced is bolstered by running the following regressions of countries' female representation ranks on various gender gap indices:

$$\textit{Country Female Representation Rank}_i = \alpha + \beta \times \textit{Gender Gap Rank}_i + \varepsilon_i. \tag{2}$$

The results, presented in the last row of Table I, show that female representation among mutual fund managers is significantly positively related to the overall gender gap rank (with a regression

[8] http://reports.weforum.org/global-gender-gap-report-2016/rankings/.

coefficient on the gender gap rank of 0.021 and a t-statistic of 1.98). That is, countries with higher levels of equality according to the gender gap index have a larger fraction of female mutual fund managers. We also find a statistically significant relation between female representation and the sub-indices based on the gender gap in (1) economic participation and opportunity, (2) educational attainment, and (3) health and survival outcomes. The ranks based on the gap in economic opportunity and education appear to be particularly important, with regression coefficients exceeding 0.03 and statistical significance at the 1% level. These results suggest that the internalized cultural attitudes toward gender equality affect the self-selection of women into the money management industry and appear to, at least partially, explain the underrepresentation of women in the industry.

Figures 1, 2, 3, and 4 plot, both for the entire set of managers in the Morningstar dataset and the sample of managers of mainstream active domestic equity funds, the evolution of certain manager characteristics over time. Of note, as shown in Figure 1, the fraction of female managers increased in the 1990s, reached its peak in 2001, and has declined ever since.[9]

Further descriptive statistics for the entire dataset are presented in Table II. Panel A of Table II contains manager characteristics by the aggregated fund categories described above; table AI shows the same statistics by Morningstar investment categories (we only present the summary statistics for categories that have at least ten unique funds). It can be seen that the fraction of women managers differs across fund categories, with relatively more female managers in municipal bond funds and relatively fewer female managers in real estate and commodity funds.

Panel B of Table II presents statistics on the career events that constitute promotions and demotions. Monthly promotion and demotion probabilities are just under 3%. Moreover, managers have a significantly higher chance of gaining or losing a co-managed fund than a sole-managed fund. As shown in Panel A of Table AII in the Appendix, promotion and demotion probabilities are very similar for the sample limited to managers of mainstream active domestic equity funds.

[9] In unreported tests, we confirm that 2001 corresponds to the structural break in the time series of the growth rate of the fraction of women managers.

Panel C of Table II and Panel B of Table AII in the Appendix present summary statistics on the differences between male and female managers. On average, male managers have significantly more years of industry experience and are older than female managers. There are substantially more male managers over 55 years of age than female managers in this age group. These results dovetail with our findings that female managers are more likely to permanently leave the industry in any given month before retirement age. Moreover, there are more foreign-born managers among female managers. When it comes to education, women are less likely to hold MBA or Other degrees and slightly less likely to have a CFA certificate. In addition, female managers tend to work for larger mutual fund families, which employ more managers, on average.

Comparing management responsibilities, the table shows that female managers sole-manage and co-manage significantly fewer funds (in contrast, in the set of managers of mainstream active domestic equity funds, women co-manage significantly more funds, as shown in Table AII in the Appendix). Total net assets attributable to a manager is significantly higher for male managers, which is consistent with our finding presented later in the paper that, all else equal, women are less likely to be promoted than men.

In terms of performance metrics, Table II shows that, without controlling for fund size, expense ratio, etc., women underperform men, and Table AII shows no significant differences in fund alphas but a slight underperformance by female managers in terms of fund flows.

Turning to various career events, the tables show that women are just as likely as men to have a gap of 6 months or longer in fund management assignments, and the average length of the employment gap is just over two years for both genders. Women are significantly more likely to permanently leave the industry in any given month before retirement age. Finally, the unconditional probability of female managers getting promoted is lower than that for male managers, while unconditional demotion probabilities are the same for male and female managers; in the set of managers of mainstream active domestic equity funds, female managers are more likely to get both promoted and demoted (Panel B of Table AII).

IV. Empirical results

A. Manager characteristics and performance

In this section, we empirically investigate to what extent managers' gender and other manager characteristics influence performance, measured by returns and fund flows. The univariate performance statistics in Table II suggest a slight underperformance by female managers compared to male managers. However, to draw meaningful inference on the effect of gender on performance, we need to control for important factors at the fund level, such as the expense ratio, turnover, 12B-1 fees, fund TNA, fund age, and an institutional fund dummy, and at the fund manager level.

We therefore include these controls in a regression analysis to explain fund flows and returns at the individual fund level. We limit the regression sample to sole-managed funds in order to more precisely determine the possible effects of manager characteristics. Moreover, for a fund to be included in the regressions, we require that the fund's manager has managed the fund for at least 13 months because fund flows may be sensitive to lagged manager characteristics as well as lagged fund flows and returns.[10]

To control for differences in fund flows and returns across different investment objective codes, we analyze style-adjusted fund flows and style-adjusted CAPM alphas by subtracting out the average fund flow and CAPM alpha among the funds in the same investment objective category in a given month. We consider only funds in investment objective categories that contain at least three other funds.

Because fund flows and returns are likely to be serially correlated and susceptible to the same market-wide shocks, we include year dummies and double cluster standard errors by fund and month. Finally, because fund flows exhibit well known seasonal patterns, e.g., linked to tax and bonus seasons, we include month dummies in all but one regression specifications.

[10] As is customary in studies analyzing fund flows, we exclude monthly observations with absolute values of fund flows in excess of 1; such observations are considered to be the result of data errors. We also only consider funds with TNA over $5 million.

Panel A of Table III presents the regression results for monthly style-adjusted fund flows. As shown in the table, being female is associated with lower monthly fund flows, all else equal. Depending on the specification, the difference in monthly fund flows between female and male managers is between 0.07% and 0.10%. (This result is consistent with the findings of Niessen-Ruenzi and Ruenzi (2017) who show that female fund managers get lower fund flows than otherwise similar male fund managers.) Managers holding a Ph.D. get significantly higher fund flows than managers with lesser degrees. The time a managers has been at a fund is negatively correlated with fund flows. All other manager characteristics do not appear to influence fund flows. It is not clear from these regressions whether investors have a preference for certain manager types or whether fund families direct marketing dollars to certain types of managers they consider to be more marketable.

Turning to fund returns, Panel B of Table III presents the results for monthly style-adjusted CAPM alphas. The results for raw style-adjusted returns are shown in Table AIII in the Appendix. Both tables show that managers' gender does not predict returns, nor do other manager characteristics (with the exception of Other degree, which is a positive predictor of returns in our sample). As is the case with fund flows, the results show that the longer a manager has worked at a fund, the lower the predicted fund returns are.

As a robustness check, we focus on a more uniform set of funds. Specifically, we limit the sample to actively-managed mainstream domestic equity funds and thereby exclude from the sample bond funds, international funds, funds that specialize in real estate, utilities, and commodities, and tax-managed and socially responsible funds. The results, presented in Table AIV in the Appendix, are very similar to those obtained for the larger sample of funds, with the exception that being female is no longer associated with lower fund flows.[11] In unreported results, we also find that female managers tend to have lower return volatilities than other managers in the same investment objective categories.

[11] The difference between this result and the results of Niessen-Ruenzi and Ruenzi (2017), who also focus on active equity funds, is likely attributable to a somewhat different sample and different regression specifications; their sample covers the period 1992-2009, regressions are run at an annual frequency, and standard errors are single-clustered at the fund level.

To sum up, with the exception of female sole managers getting slightly lower fund flows than male sole managers with similar fund characteristics and performance, we do not observe reliable performance differences that can be attributed to manager gender or other manager characteristics. Nevertheless, we will control for past performance in the regressions explaining manager career outcomes.

B. Explaining industry departures and comprehensive career outcomes

In this section, we estimate monthly regressions to explain industry departures and managers' comprehensive career outcomes, which include all promotions and demotions. In all regressions, we include either fund family dummies or fund family characteristics. Fund family characteristics include the combined TNA of all funds that a fund family manages, the number of funds in the fund family, and the number of managers working at the fund family as of the end of the prior month.

Managers' careers may be affected by investor sentiment towards the fund categories that they manage. For example, commodity funds may be shut down after investor sentiment toward commodities turns negative. To control for investor sentiment toward particular investment objective categories we include the variable *IOC Trend*, which is calculated over a rolling 12-month window as the average fund flow into that investment objective category. As mutual fund families may also take into account the volatility of managers' returns when making promotion and demotion decision, we include the standard deviation of the monthly alpha ranks attributed to a manager, calculated over the trailing window over which performance is measured, as an additional control. In addition, the set of controls includes the log of the combined TNA that a manager manages and the number of funds s/he manages.

We include the following performance measures: the within-IOC rank of managers' CAPM alphas and fund flows (1 to 10). These ranks are calculated over the trailing windows $[-12,-1]$, $[-24,-13]$, and $[-36,-14]$ months, corresponding to subscripts $t-1$, $t-2$, and $t-3$ in the tables, by averaging managers' monthly ranks over these windows. If a manager manages more than one

fund in a particular month, the funds' ranks are weighted by the percentage of the funds attributable to the manager, as described earlier. The reason for including performance measures lagged by up to three years is that career decisions may be based on performance information from the prior years. In specifications that include performance measures lagged by three years, we require that a manager has at least 36 months of continuous fund management experience.

The monthly fund return and TNA sample is available from January 1992 to December 2016. Because we forecast career changes one month ahead, our main sample period January 1992 to January 2017. In model specifications that include performance measures computed over a trailing 36-month window, the sample period is reduced by the initial 36 months.[12] The sample is further reduced in models that use school information to identify whether a manager is of foreign origin, whether s/he has an advanced degree, and whether s/he went to a top school. In all regression specifications, we only consider investment categories with at least ten funds and fund families with at least five funds or five managers. Since time series and cross-sectional correlations in the error terms are likely, we double cluster standard errors by year and manager. Finally, because managers' career outcomes are affected by the state of the stock market (for example, we observe large manager exoduses after the dot-com and real estate collapses), we include year dummies in all regressions.

The linear probability regressions explaining manager firings—defined, as described above, as instances in which managers permanently leave the fund management industry while being under the retirement threshold, are presented in Table IV. The table is structured as follows: Panel A presents the results organized by the years of managers' fund management experience, and Panel B presents the results of regressions that include a richer set of controls, such as managers' education information. In the regressions in Panel A, we use the variable *foreign+guess* in order to retain observations with missing school information. Subpanels A1-A3 and B1-B3 report the results for the samples comprised of all managers, only sole managers, and only co-managers, respectively.

[12] In a robustness check, we end the sample one year earlier, in January 2016, in order to allow for the possibility that managers may have a one-year career gap due to parental leave, which we do not want to identify as firings. This modification does not affect the results.

Considering the results in Subpanel A1, it is noteworthy, though not surprising, that the probability of a premature departure from the industry is highly negatively related to past performance, measured both by alphas and fund flows. Strikingly, the regression coefficients on the dummy *Female* are positive and highly significant in all specifications, ranging between 0.0024 and 0.0033. Given that, according to Panel D of Table II, male managers have an unconditional probability of being fired in a given month of 6%, these estimates imply that female managers face an increase in the probability of being fired of 40% to 55%, compared to male managers. Among the other control variables, the combined TNA and the number of funds managed are significant predictors of departures. Overall, however, the inclusion of other control variables has very limited effect on the coefficient estimate on the dummy *Female*. Regardless of the regression specification, managers of foreign origin do not face a higher probability of being fired than native-born managers.

Comparing the results for the subsamples of sole managers and co-managers in Subpanels A2 and A3, respectively, reveals that, as managers gain years of industry experience, the difference in the firing probabilities between men and women disappears for sole managers but increases for co-managers. That is, female co-managers have a more precarious position in the industry than male co-managers, even after years of working in the industry. This is finding is in line with the findings of Sarsons (2017) that women get less credit than men for joint academic publications.

The results from the regressions with additional controls, reported in Panel B, reveal additional noteworthy results. First, female managers are *not* disproportionately more likely to exit the industry early in their career, potentially due to conflicting family responsibilities. Second, while all managers are more likely to exit the industry following poor performance, female managers, on average, do not appear to be singled out by fund families for firing due to bad performance. In fact, in the samples considering all managers or only co-managers (Subpanels B1 and B3), female managers are slightly less likely to be fired after low returns in the prior year, as indicated by a positive coefficient on the term interacting the dummies *Female* and *Low Alpha*. However, in the sample of sole managers, a significantly positive coefficient on the term interacting the dummies *Female* and *Low FFlow* indicates that female sole managers are more likely to leave the industry following a year of low fund flows. According to the results in regression specifications (7) through

(13) that rely on managers' school information and redefine foreign origin purely based on whether or not a manager attended a foreign college or university, managers' education and foreign origin do not affect their probability of being fired.

Appendix Table AV reports regression results with the sample starting in January 2006. Part of the reason to rerun the results since 2006 is to alleviate any concerns about the possible survivorship bias in the Morningstar data and the effect it may have on the results. There should be negligible survivorship bias in the 2006-2017 sample because we combined the Morningstar files from 2005, 2009, 2011, 2013, and 2017. As an additional robustness check, Appendix Table AVI presents the regression results only for the managers of active domestic mainstream equity funds. The results reported in both appendix tables correspond to Panels A1 of the tables in the main text.

The regression coefficients reported in Panel A of Table AV are very similar to those reported in the corresponding table in the main text, Panel A1 of Table IV. Hence, our results are not affected by the possible survivorship bias in the data, and higher propensity of female managers to prematurely leave the industry did not change later in the sample.

Appendix Table AVI, Panel A, presents the regression results only for the managers of active domestic mainstream equity funds. The table shows that the firing patterns for equity managers are very similar to that of the comprehensive dataset, as reported in Panel A1 of Table IV.

Table V explains managers' promotions and demotions. According to Panels B and C of Table II, most of career changes center around promotions or demotions after which the manager still remains in the industry, while demotions that result in firings and long gaps in employment are relatively rare. As described earlier, career changes are measured as a change in fund management responsibilities in the current month scaled by the manager's prior month's fund management responsibility. Panel A shows that manager career movements strongly depend on past returns and fund flows. All else equal, female managers have worse career outcomes than male managers who have similar returns and fund flows and similar fund management responsibilities. The regression coefficient on the Female dummy ranges between -0.0047 and -0.0011. It increases but remains negative as women gain industry experience. The coefficient magnitudes imply that for female

managers, the expected growth in fund management responsibilities is between 0.0047 and 0.0011 below that of an otherwise similar male manager.

The comparison of Table A2 and Table A3 reveals that, while female sole managers become more similar to male managers in expected career advancements as their tenure in the industry increases, this pattern is flat for female co-managers. Female co-managers appear to have worse career outcomes than male co-managers throughout their tenure in the industry, after controlling for performance and fund management responsibilities. Consistently with the results in Table IV, these results appear to show that working in teams negatively affects women's career opportunities.

As with firings, managers of foreign origin do not appear to suffer worse career outcomes then US-born managers.

Appendix Tables AV, Panel B, reports regression results with the sample starting in January 2006. The regression coefficients are very similar to those reported in Panel A1.

Appendix Table AVI, Panel B, presents the regression results only for the managers of active domestic mainstream equity funds. Though the coefficient on the Female dummy is negative in all regression specifications, it increases more quickly as managers are conditioned to have a longer track record, and the differences in promotions between male and female managers are not as significant as in the overall sample.

Turning to the more detailed analysis of managers with at least three years of fund management experience, presented in Panel B, results show that female managers' promotions are *not* more sensitive to past performance than male managers' promotions. While for all managers, all else equal, younger managers are more likely than older managers to be promoted, women's promotions are *not* more sensitive to the stage of their career than men's promotions. This suggests that women do *not* deliberately avoid getting promoted due to potential family conflicts early in their careers.

The regression specifications (7) through (13) that rely on mangers' school information, show that, all else equal, managers with advanced degrees have better career trajectories, while foreign-born managers have worse career trajectories. When it comes to sole managers, as reported in

Table B2, promotions of foreign managers, the careers advancements of managers who went to top schools, and managers with advanced degrees is more sensitive to past returns than career advancements for otherwise similar managers.

C. Career outcomes of co-managers with identical track records

One may be concerned that we do not perfectly control for the types of funds that managers manage. Perhaps the types funds managed by women are more likely to become obsolete, and female managers may disproportionately leave the industry for that reason. In order to eliminate this concern we also perform the tests described in this section.

We investigate career outcomes of co-managers who are indistinguishable from each other in terms of their employment history and past performance. We form fund-co-manager cohorts that consist of co-mangers who started co-managing the same mutual fund in the same month and had no prior recorded mutual fund management history and no other concurrent mutual fund management responsibilities. Figure 5 provides a graphical illustration of how fund-co-manager cohorts are formed. The observable performance of co-managers in the same cohort is identical. Hence, there should not be any systematic differences in future promotions or demotions related to fund manager characteristics. We test whether this is the case. The sample for this test includes all managers in the Morningstar dataset since we do not need to link the Morningstar data to the return and TNA data in the CRSP Mutual Fund dataset.

We begin by investigating whether female co-managers have the same career outcomes as their otherwise identical male cohort members. For this test, we require that at least one member of the fund-co-manager cohort is female. The sample descriptions are provided in Table VI, Panel A. The sample contains 139 cohort observations and 375 unique managers. Male manager outnumber female managers by 7%. The average number of co-managers in a cohort is 3.33.

We then check what happens to these co-managers next in their careers. If a manager's tenure with the fund ends and the manager gets no other mutual fund management responsibilities, we

consider the manager to be fired, and we code this observation as a demotion and set the career outcome variable equal to -1. If a manager stays in the same position until the end of our sample period, we code this observation as neither a promotion nor a demotion and set the value of the career outcome variable to 0. If a manager leaves the fund and gets a new co-management responsibility at another fund, we also code this observation is nether a promotion nor a demotion and set the career outcome variable equal to 0. Finally, if a manager subsequently gets a sole-management responsibility or becomes a co-manager of more than one fund, we code this observation as a promotion, and set the career outcome variable to $+1$.

We investigate separately whether the probability of promotion and probability of demotion depends on the co-manager characteristics and whether career outcomes, as we coded them, systematically differ across co-managers. Specifically, we demean each variable of interest by the mean of the corresponding fund-co-manager cohort and present the results for the deviations in the observed variable of interest from the cohort mean:

$$Prob(CareerOutcome_{ij}) = \sum_{i=1}^{N} \alpha_i Cohort_i + \beta_j X_{ij} + \varepsilon_{ij} \tag{3}$$

where X is a vector of manager characteristics.

The results, reported in Panel B of Table VI, show that female co-managers have a 9.2% to 10.5% higher probability of losing the co-management job than the male co-managers in the same cohort. The likelihood of a promotion is somewhat lower than for male cohort members, but the difference is insignificant. All in all, female co-managers tend to have a significantly worse career outcomes than the otherwise identical male co-managers.

Next, we check the hazard rate for promotion. The motivation for this analysis is that, even if all co-managers in a cohort eventually get promoted, some may get promoted faster than others. Specifically, we investigate the probability of a promotion in each subsequent month, conditional on the manager remaining in the fund until then, using the Cox proportional hazard rate model. When estimating the model, we take into account that our sample is censored at the end of our

sample period, and, thus, we may not have a chance to observe a promotion that happens in the future beyond the end of the sample. We use dummies for each fund-co-manager cohorts, thereby setting the baseline probability of promotion the same for the co-managers in each cohort:

$$ln[h_i(t)/h_o(t)] = \sum_{i=1}^{N} \alpha_i Cohort_i + \beta_j X_{ij} \tag{4}$$

where X is a vector of manager characteristics. We use all fund-co-manager cohorts in this analysis, requiring only that each cohort has some variation in at least one manager characteristic of interest. In this analysis, we code the co-managers that were fired as not being promoted.

The results are reported in Table VII. Panel A presents the summary statistics of the sample. This sample is somewhat larger than the one in Table VI and has 439 cohorts. The sample contains 1,083 unique managers, and the fraction of female managers is lower than in the previous table because of the generally low percentage of female managers in the industry.

Panel B presents the results of the hazard regressions, as well as hazard ratios for the explanatory variables. Conditional of having stayed in the fund until month t, managers who have MBAs have a significantly higher probability of being promoted in month $t+1$ than other managers in their cohort. Other manager characteristics do not come out consistently statistically significant.

D. Professional networks: suggestive evidence

One of the crucial inputs into a successful career is a strong professional network. An important time to call on one's professional networks is when looking for a new job. For this reason, we specifically check career outcomes of mutual fund managers who must find new jobs elsewhere subsequent to their fund families merging or closing.

To be consistent with the earlier sample, we still consider the sample of fund families with at least 5 funds and 5 managers employed and using the January 1992 to December 2016 sample

period.[13,14] There are 11 observations of fund family closings in this sample, involving 114 mutual fund managers. Of these, 13 are female and 10 are of a foreign origin (here we use the dummy *foreign+guess* to increase the sample size).[15]

We find that the unconditional probability of permanently disappearing from the mutual fund industry in the month in which the fund family closes, while being under 60 years old or having under 30 years of fund management experience if age information is missing, is 51%. When regressing the probability of a permanent disappearance from the industry on female and foreign dummies, while using fund family fixed effects to account for the possibility that each fund family closure may have a different effect on the reputations of the managers involved, we estimate the coefficient on the *Female* dummy to be 0.02 (t-statistic=0.13), and the coefficient on the *foreign+guess* dummy to be 0.30 (t-statistic=1.71). Therefore, foreign managers are 30% less likely to find another job in the mutual fund industry after their fund family disappears, which is a statistically and economically significant result. While it is difficult to draw strong conclusions from the results on based on such small sample size, it makes intuitive sense that the effect is stronger for foreign managers, who are likely have smaller professional networks in the United States.

V. Conclusion

In this paper, we investigate whether being in the minority relative to the typical employee profile adversely affects the employee's career prospects. We conduct this investigation in the mutual fund industry. Mutual fund manager identifies are readily available and the industry is highly transparent because of the required disclosures of mutual fund returns and total net asset values, which makes it easy to measure managers' performance. We are additionally able to observe managers' career outcomes as changes in the assigned funds.

[13] We obtain the end months of fund families from the CRSP Mutual Fund dataset.

[14] The results are similar when broaden our sample to fund families that consist of at least 2 funds and 2 managers.

[15] As before, Canadian managers are not considered to be foreign.

We find that past performance is a very important determinant of managers' promotions, demotions, and firings. This finding suggests that the money management is a largely meritocratic industry that rewards performance. However, managers' personal attributes also appear to influence their career outcomes. A female manager with the same fund management duties and past performance as a male manager is significantly less likely to be promoted and significantly more likely to leave the industry before the retirement age. This observation is stronger still for female co-managers, who likely get less credit for good fund performance than their male co-managers.

Additionally, we find a strong positive effect of young age on the career prospects, and a somewhat positive effect of elite school education, even after controlling for performance. Foreign-educated managers appear to have worse career outcomes, in part because of smaller social networks.

Overall, the results in this paper suggest that, despite the fact that the mutual fund industry is transparent and performance oriented, traces of bias against some employee groups can still be observed. Therefore, biases against underrepresented employees are likely to be worse in the less transparent and less performance-oriented organizations.

The paper highlights an empirical fact that merits further analysis, that women are severely underrepresented in the population of mutual fund fund managers, and the trends are not improving. We show that one reason is that female fund managers tend to have shorter tenures than male fund managers. Another reason appears to be the culturally explained aversion of some women from going into the money management field.

References

Azmat, Ghazala, and Rosa Ferrer, forthcoming, Gender gaps in performance: Evidence from young lawyers, *Journal of Political Economy*.

Bertrand, Marianne, Claudia Goldin, and Lawrence F. Katz, 2010, Dynamics of the Gender Gap for Young Professionals in the Financial and Corporate Sectors, *American Economic Journal: Applied Economics* 2, 228–255.

Bertrand, Marianne, and Sendhil Mullainathan, 2004, Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination, *American Economic Review* 94, 991–1013.

Chevalier, Judith, and Glenn Ellison, 1999, Career concerns of mutual fund managers, *Quarterly Journal of Economics* 114, 389–432.

Christiano, Kevin J., 1986, Salary discrimination in major league baseball: The effect of race, *Sociology of Sport Journal* 3, 144153.

Desai, Sreedhari D., Dolly Chugh, and Arthur P. Brief, 2014, The implications of marriage structure for mens workplace attitudes, beliefs, and behaviors toward women, *Administrative Science Quarterly* 59, 330–365.

Evans, Richard B., 2009, Does alpha really matter? Evidence from mutual fund incubation, termination and manager change, Working paper.

Ginther, Donna K., and Kathy J. Hayes, 2003, Gender differences in salary and promotion for faculty in the humanities, *Journal of Human Resources* 38, 34–73.

Ginther, Donna K., and Shulamit Kahn, 2005, Does science promote women? Evidence from academia 1973-2001, *Science and Engineering Careers in the United States. Richard B. Freeman and Daniel F. Goroff (eds), Chicago, IL: University of Chicago Press for NBER Science Engineering Workforce Project*.

Ginther, Donna K., Walter Schaffer, Joshua Schnell, Beth Masimore, Faye Liu, Laurel Haak, and Raynard Kington, 2011, Race, ethnicity, and NIH research awards, *Science* 333, 1015–1019.

Goldin, Claudia, and Cecilia Rouse, 2000, Orchestrating impartiality: The impact of "blind" auditions on female musicians, *American Economic Review* 90, 715–741.

Hu, Fan, Alastair R. Hall, and Campbell R. Harvey, 2000, Promotion or demotion? An empirical investigation of the determinants of top mutual fund manager change, Working paper.

Khorana, Ajay, 1996, Top management turnover: An empirical investigation of mutual fund managers, *Journal of Financial Economics* 40, 403–427.

Lahey, Joanna N., 2008, Age, women, and hiring: An experimental study, *J. Human Resources* 43, 30–56.

Lamont, Owen, and Andrea Frazzini, 2008, Dumb money: Mutual fund flows and the cross-section of stock returns, *Journal of Financial Economics* 88, 299–322.

List, John A., 2004, The nature and extent of discrimination in the marketplace: Evidence from the field, *The Quarterly Journal of Economics* 119, 49–89.

Niessen-Ruenzi, Alexandra, and Stefan Ruenzi, 2017, Sex matters: Gender bias in the mutual fund industry, Working paper.

Palmer, Matthew, and Randall King, 2006, Has salary discrimination really disappeared from major league baseball?, *Eastern Economic Journal* 32, 285–297.

Sarsons, Heather, 2017, Recognition for group work, Working paper.

Scully, Gerald W, 1974, Pay and performance in major league baseball, *American Economic Review* 64, 915–930.

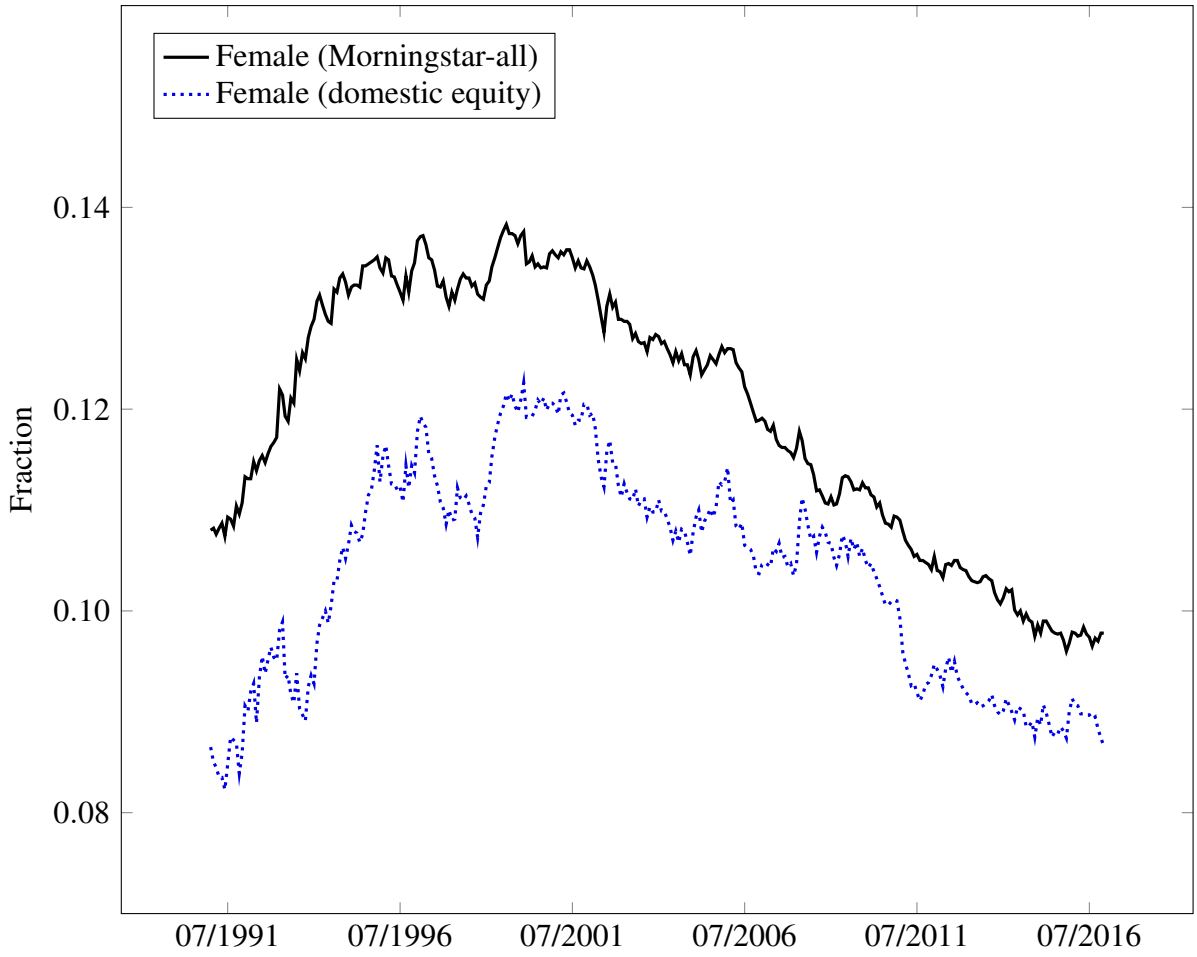

Figure 1. Fraction of female managers. The figure plots the fraction of female fund managers by month. The solid line plots the fraction for all managers in the original Morningstar dataset and the dotted line plots the fraction in active mainstream domestic equity funds.

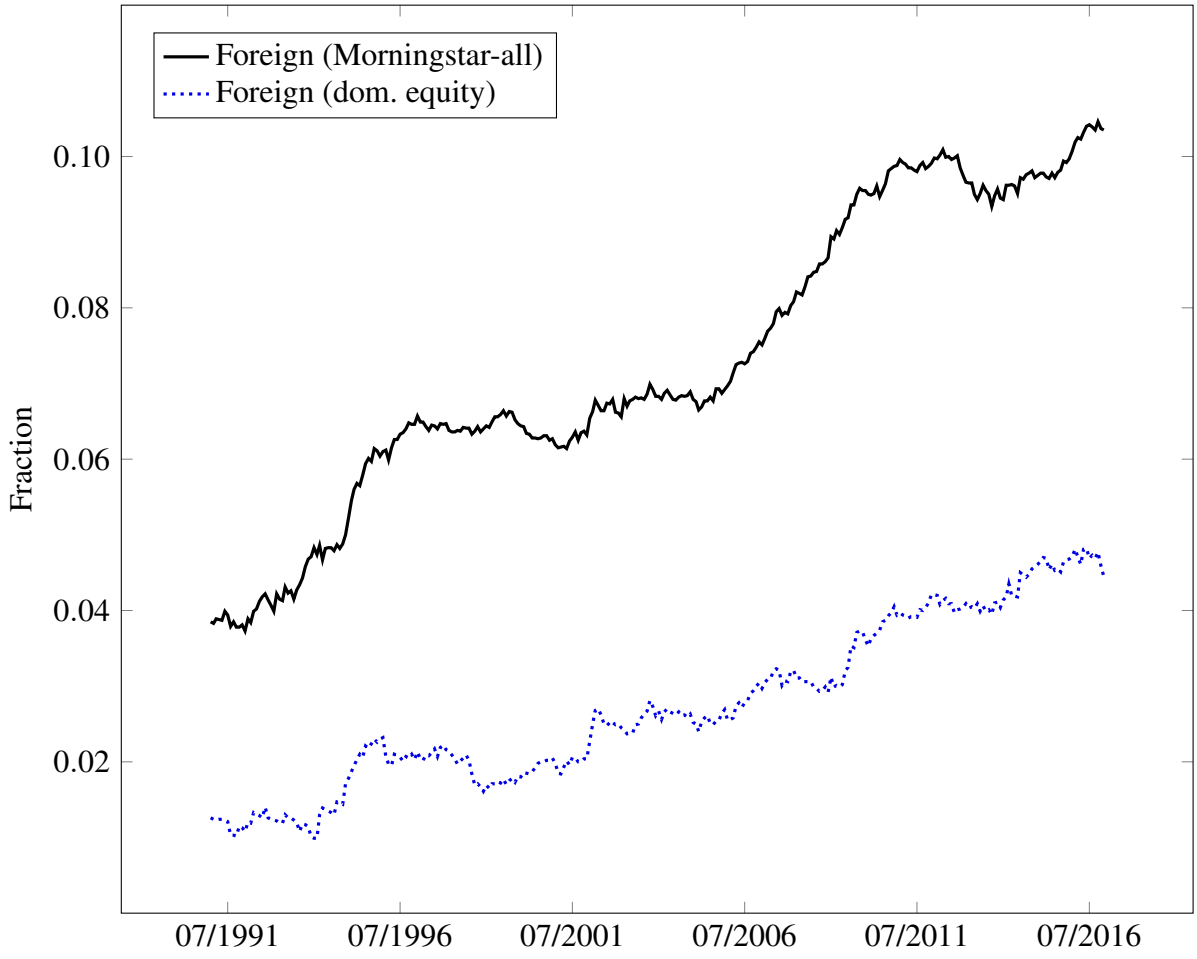

Figure 2. Fraction of foreign managers. The figure plots the fraction of foreign fund managers by month. The solid line plots the fraction for all managers in the original Morningstar dataset and the dotted line plots the fraction in active mainstream domestic equity funds. Canadian managers are not considered to be foreign.

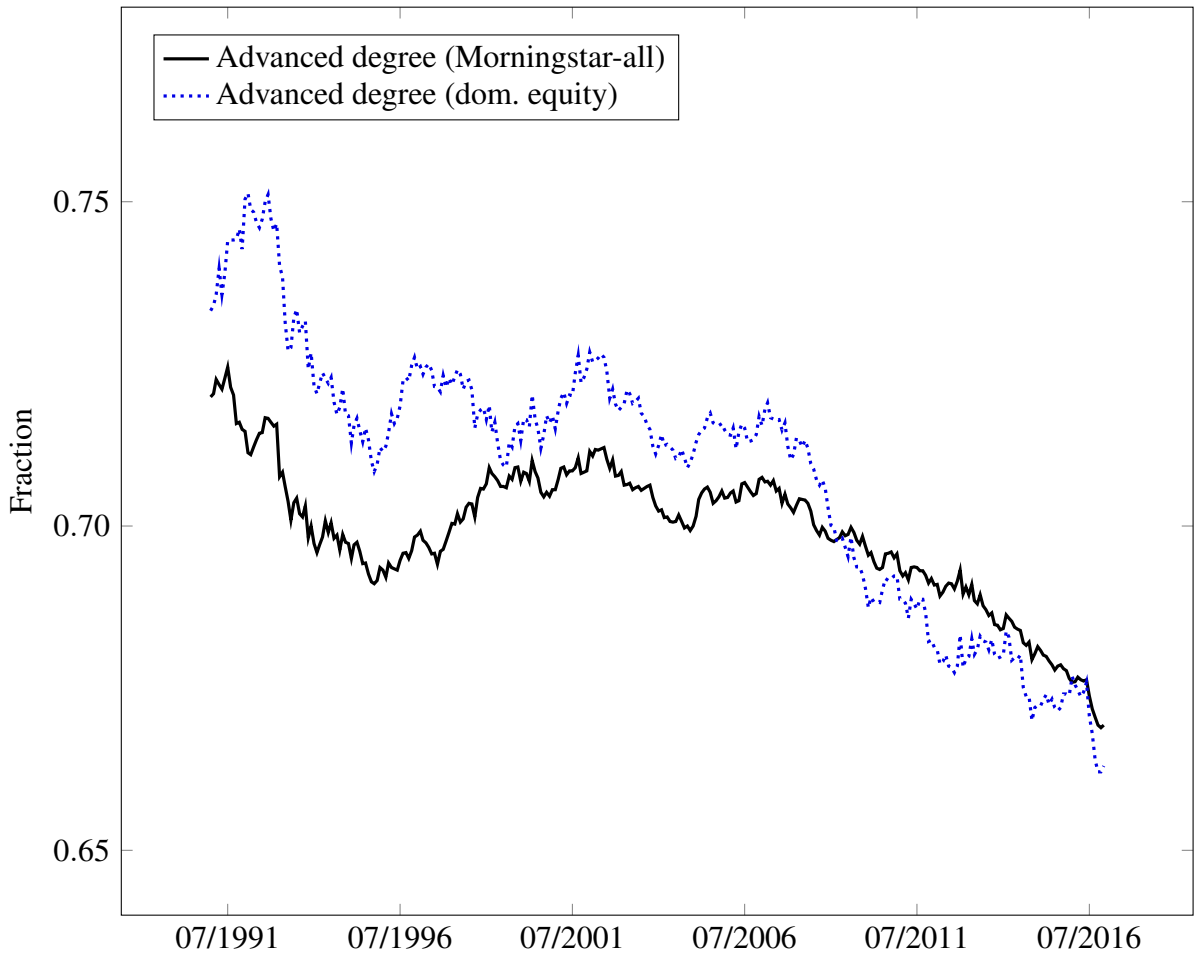

Figure 3. Fraction of managers holding an advanced degree. The figure plots the fraction of fund managers who hold an advanced degree. An advanced degree is any degree earned after the Bachelor's degree. The solid line plots the fraction for all managers in the original Morningstar dataset and the dotted line plots the fraction in active mainstream domestic equity funds.

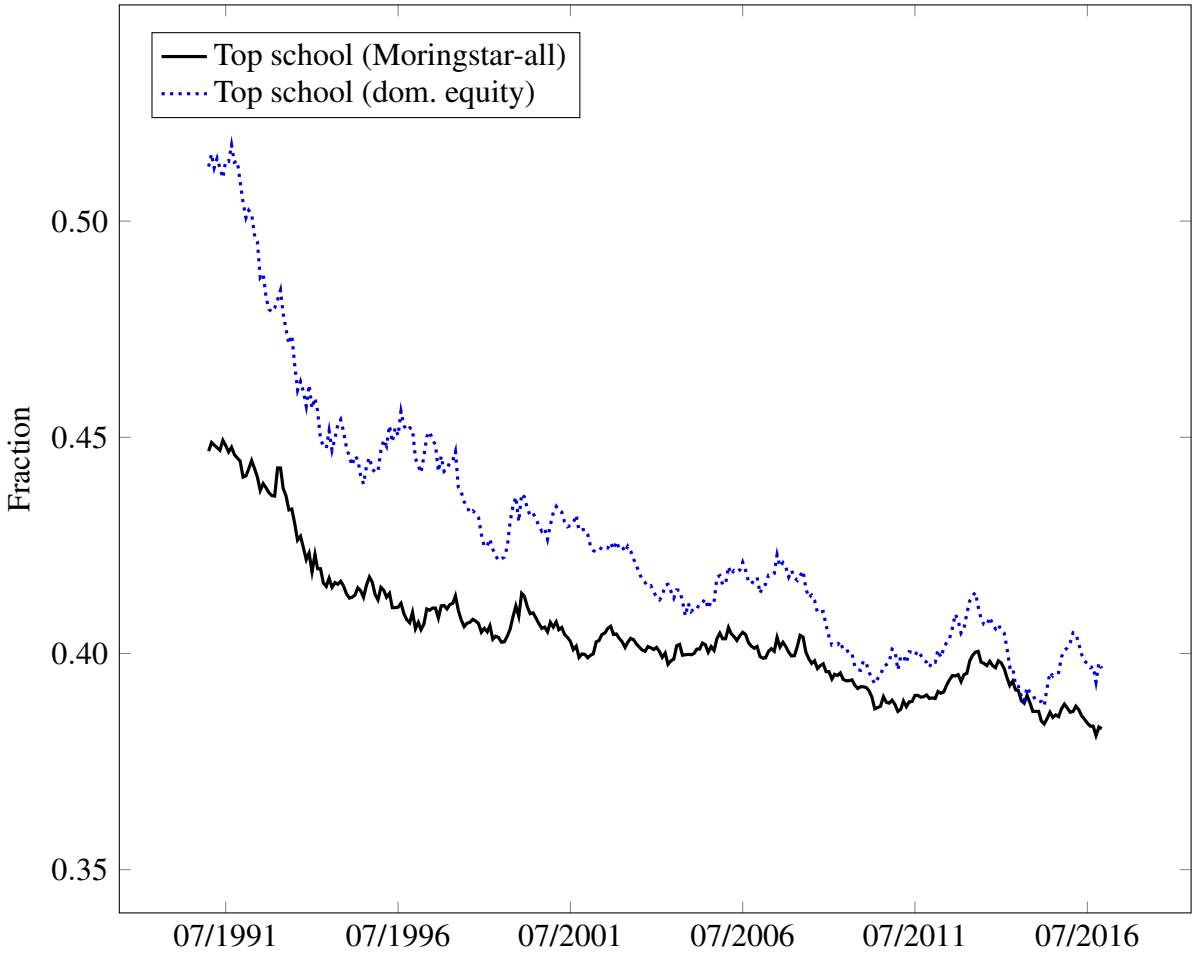

Figure 4. Fraction of managers who attended top schools. The figure plots the fraction of fund managers who obtained at least one of their degrees from a top-ten college, a top-ten university, a top-ten MBA program, ranked based on their selectivity, or any Ivy League school. The solid line plots the fraction for all managers in the original Morningstar dataset and the dotted line plots the fraction in active mainstream domestic equity funds.

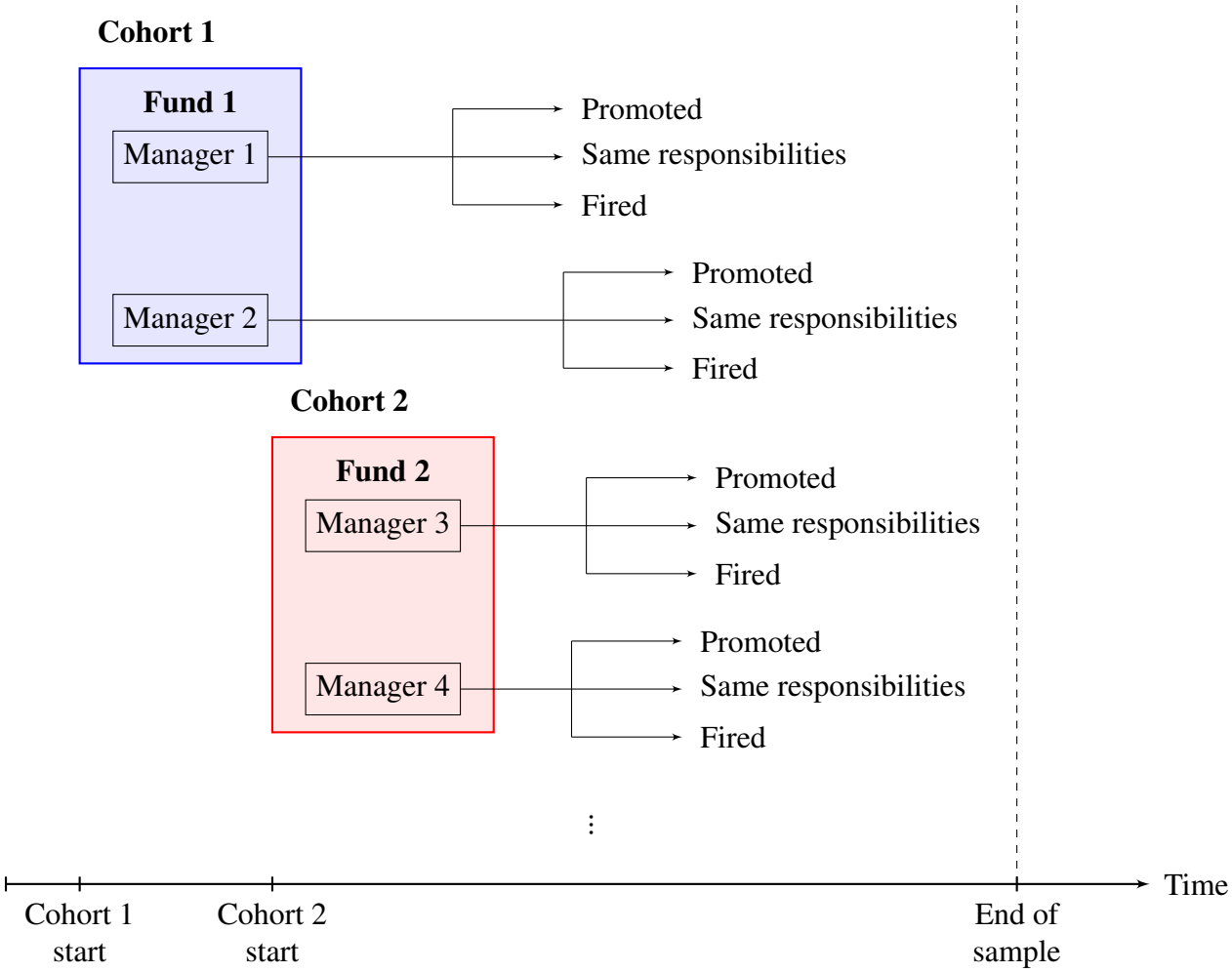

Figure 5. Graphical illustration of fund-co-manager cohorts The figure provides a graphical illustration of how fund-co-manager cohorts are constructed. These cohorts consist of all co-managers who started co-managing the fund in the same month and have no other fund management responsibilities and no prior fund management history. We subsequently investigate whether co-managers in the same cohort have different career outcomes, such as being fired or being promoted, depending on their personal characteristics.

Table I
Manager statistics by country of origin

This table present information on the countries represented in the Morningstar dataset. The country of origin is inferred by the location of the schools that the manager attended. If at least one of the schools is located in a foreign country, the manager is considered to be foreign. Observations with missing school information are excluded. If the school information is missing, the manager is excluded from the analysis. The table also presents the country ranks of the counties represented in the Morningstar dataset from 1 to 10 based on the female representation of mutual fund managers. The table furthermore reports country ranks from the 2016 The Global Gender Gap Index produced by World Economic Forum (these include the comprehensive index and the subindices based on (1) economic participation and opportunity; (2) educational attainment; (3) health and survival; and (4) political empowerment). The last raw of the table presents the beta from the regression of the Female representation rank in the mutual fund industry on the Gender Gap Indices. ^{a}, ^{b}, and ^{c} indicate the 1%, 5% and 10% statistical significance levels, respectively.

	Fraction	Female repr.	Total number	Global Gender Gap Index				
Country	female	rank	of managers	Overall	Economic	Educational	Health	Political
mexico	0.000	10	11	66	122	51	1	34
denmark	0.000	10	7	19	34	1	106	29
chile	0.000	10	4	70	119	38	39	39
pakistan	0.000	10	3	143	143	135	124	90
poland	0.000	10	3	38	58	31	40	44
bolivia	0.000	10	2	23	98	98	1	11
georgia	0.000	10	2	90	61	78	119	114
hungary	0.000	10	2	101	67	67	40	138
lebanon	0.000	10	2	135	133	108	102	143
portugal	0.000	10	2	31	46	63	76	36
dominican republic	0.000	10	1	97	78	77	97	118
egypt	0.000	10	1	132	132	112	95	115
finland	0.000	10	1	2	16	1	1	2
guatemala	0.000	10	1	105	102	107	1	96
kenya	0.000	10	1	63	48	116	83	64
morocco	0.000	10	1	137	139	122	93	98
nigeria	0.000	10	1	118	52	134	135	109
norway	0.000	10	1	3	7	28	68	3
peru	0.000	10	1	80	111	80	100	60
italy	0.045	8	22	50	117	56	72	25
netherlands	0.048	7	42	16	76	60	103	14
new zealand	0.056	7	18	9	24	40	104	16
australia	0.068	7	88	46	42	1	72	61
south africa	0.071	7	28	15	63	55	1	13
argentina	0.077	7	13	33	101	54	1	22
germany	0.098	7	61	13	57	100	54	10
israel	0.100	6	10	49	62	1	67	48
sweden	0.100	6	10	4	11	36	69	6
united states	0.117	6	12452	45	26	1	62	73
india	0.123	6	171	87	136	113	142	9
japan	0.125	6	48	111	118	76	40	103
canada	0.129	5	233	35	36	1	108	49
switzerland	0.133	5	30	11	30	61	72	15
belgium	0.154	5	13	24	37	1	64	35
brazil	0.167	5	18	79	91	42	1	86
iceland	0.182	5	33	1	9	1	104	1
ireland	0.182	5	33	6	49	1	54	5
france	0.227	5	75	17	64	1	1	19
venezuela	0.250	4	4	74	71	33	1	89
greece	0.286	4	7	92	85	85	54	101
spain	0.286	4	7	29	72	43	91	26
china	0.327	4	104	99	81	99	144	74
bulgaria	0.333	3	3	41	43	65	40	51
austria	0.375	3	8	52	84	86	1	41
philippines	0.500	2	6	7	21	1	1	17
jamaica	0.500	2	4	42	35	1	1	63
ukraine	0.500	2	4	69	40	26	40	107
belarus	0.500	2	2	30	5	29	40	80
romania	0.500	2	2	76	54	68	40	112
singapore	0.545	2	22	55	17	95	121	97
colombia	0.667	2	3	39	28	37	40	66
czech republic	1.000	1	2	77	89	1	40	85
latvia	1.000	1	1	18	18	1	1	38
lithuania	1.000	1	1	25	25	1	40	43
paraguay	1.000	1	1	96	82	59	1	122
β from regressing Country Female Representation rank on indices				0.021^{c}	0.033^{a}	0.032^{a}	0.022^{b}	0.011
(t-statistic)				(1.98)	(3.16)	(3.32)	(2.23)	(0.02)

Table II
Descriptive statistics on mutual fund managers

This table presents descriptive statistics on mutual fund managers. Firings, promotions and demotions are defined in the text of the paper. The sample period is January 1992 – December 2016.

Panel A: Manager characteristics by fund category

Fund category	Female	Top school	Foreign	MBA	MA	PhD	Other degree	CFA	Age	Avg. no. of funds	No. obs.
Domestic equity	0.10	0.30	0.05	0.47	0.14	0.04	0.03	0.50	47.3	612	1935414
Soc. resp. & tax-managed	0.21	0.33	0.01	0.48	0.04	0.01	0.03	0.51	47.9	876	6350
Industry-focused equity	0.18	0.30	0.04	0.51	0.10	0.05	0.01	0.53	47.4	30	9030
Real estate	0.06	0.41	0.02	0.50	0.14	0.02	0.01	0.41	46.3	124	30758
Corporate bonds	0.11	0.23	0.03	0.45	0.11	0.02	0.02	0.43	45.7	340	803498
Government bonds	0.14	0.28	0.04	0.36	0.15	0.03	0.03	0.42	45.3	104	334561
Commodity	0.05	0.33	0.13	0.33	0.14	0.03	0.04	0.34	46.9	55	17966
International	0.13	0.39	0.24	0.38	0.21	0.06	0.04	0.39	46.3	358	745896

Panel B: Statistics on promotions and demotions (monthly probabilities)

Promotion - gain additional sole-managed fund(s)	0.00576
Promotion - gain additional co-managed fund(s)	0.02124
Total probability of promotion	0.02700
Demotion - lose sole-managed fund(s)	0.00708
Demotion - lose co-managed fund(s)	0.02267
Total probability of demotion	0.02975

Panel C: Statistics on employment gaps and firings (monthly probabilities)

Gap in employment over 6 months	0.00137
Fired (leave the industry $<$55 y.o. or $<$25 yrs experience)	0.00640

Panel D: Male vs. Female managers

			Difference	
	Male	Female	Female - Male	t-statistic
Fraction of manager-months	0.877	0.123		
Number of unique managers	11,119	1,550		
Years in industry	10.015	8.986	-1.029	(-62.63)
Age	48.159	45.913	-2.246	(-58.46)
Age first started	32.455	31.653	-0.802	(-2.49)
Under 35 y. o.	0.054	0.055	0.001	(0.87)
Over 55 y. o.	0.218	0.119	-0.099	(-63.13)
Foreign	0.123	0.146	0.022	(2.13)
MBA	0.405	0.343	-0.062	(-5.02)
MA	0.128	0.132	0.003	(0.40)
PhD	0.032	0.027	-0.004	(-1.03)
Other degree	0.031	0.016	-0.015	(-4.46)
Top school	0.387	0.395	0.008	(0.52)
CFA	0.417	0.378	-0.039	(-3.08)
No. of sole-managed funds	0.557	0.478	-0.079	(-14.54)
No. of co-managed funds	2.820	2.730	-0.089	(-7.28)
Managed TNA ($, mil)	1438.00	1116.64	-321.36	(-28.97)
No. of managers in fund family	43.884	48.616	4.733	(34.80)
Alpha rank	4.558	4.517	-0.041	(-3.81)
Fund flow rank	4.450	4.361	-0.089	(-4.85)
Prob. employment gap over 6 mo.	0.001	0.001	-0.000	(-0.60)
Length of empl. gap (yrs)	2.147	2.236	0.089	(0.68)
Prob. fired	0.006	0.008	0.003	(8.97)
Prob. demoted (but not fired)	0.026	0.026	-0.000	(-0.06)
Prob. promoted	0.024	0.023	-0.001	(-2.21)

Table III
Explaining style-adjusted fund flows and CAPM alphas

This table presents the results of OLS regressions explaining monthly style-adjusted fund flows (Panel A) and style-adjusted CAPM alphas (Panel B), which are computed by subtracting out the mean fund flow (mean CAPM alpha) earned by funds in the same investment objective category in a given month. The set of funds only includes sole-managed funds, and we require that the fund manager has been with the fund for at least 13 months. Return controls include the style-adjusted CAPM alphas lagged by one, two and three months, with the CAPM beta estimated over lagged rolling 12-month return windows, as well as the average alpha earned by the fund over months $t-12$ to $t-4$, as well as the standard deviation of the CAPM residuals over the period $t-12$ to $t-1$. Fund flow controls include style-adjusted fund flows lagged by one, two and three months, and the average fund flow earned over months $t-12$ to $t-4$. Fund controls include 12b-1 fees, expense ratio, the institutional fund indicator, total net assets under management, and turnover ratio. Fund family controls include the total number of managers employed in the fund family and the total number of funds and the total TNA of all funds in the fund family. Manager's time in industry and fund age are expressed in months. Managers are identified as foreign if they have attended a foreign college or university for at least one of their degrees, with universities and colleges located in Canada excluded from this definition. All variables are known at the end of month $t-1$. The sample period is 1993-2016. Standard errors, clustered by fund and month, are reported in parentheses.

Panel A: Style-adjusted fund flows

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Female	-0.0010	-0.0014	-0.0012	-0.0009	-0.0010	-0.0010	-0.0007	-0.0007	-0.0008	-0.0007
	(-2.62)	(-3.69)	(-3.17)	(-2.73)	(-2.89)	(-2.62)	(-1.70)	(-1.78)	(-1.85)	(-1.71)
Time in industry	.	.	.	.	.	.	.	.	.	-0.0000
	.	.	.	.	.	.	.	.	.	(-4.06)
Time in industry^2	.	.	.	.	.	.	.	.	.	0.0000
	.	.	.	.	.	.	.	.	.	(3.39)
Foreign	.	.	.	.	.	.	0.0003	0.0002	0.0003	0.0000
	.	.	.	.	.	.	(0.50)	(0.33)	(0.49)	(0.03)
Foreign×female	.	.	.	.	.	.	.	0.0010	.	.
	.	.	.	.	.	.	.	(0.58)	.	.
MBA	.	.	.	.	.	.	0.0004	0.0004	0.0004	0.0004
	.	.	.	.	.	.	(1.43)	(1.42)	(1.45)	(1.58)
MA	.	.	.	.	.	.	0.0005	0.0005	0.0005	0.0006
	.	.	.	.	.	.	(1.48)	(1.49)	(1.53)	(1.68)
PhD	.	.	.	.	.	.	0.0015	0.0015	0.0015	0.0015
	.	.	.	.	.	.	(2.37)	(2.36)	(2.27)	(2.30)
Other degree	.	.	.	.	.	.	.	.	.	0.0009
	.	.	.	.	.	.	.	.	.	(1.11)
CFA	.	.	.	.	.	.	.	.	.	-0.0001
	.	.	.	.	.	.	.	.	.	(-0.54)
Top school	.	.	.	.	.	.	.	.	.	-0.0001
	.	.	.	.	.	.	.	.	.	(-0.19)
Time at the fund	.	.	.	.	.	.	.	.	-0.0000	.
	.	.	.	.	.	.	.	.	(-3.43)	.
Fund flow controls	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Fund return controls	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
Fund controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Month dummy	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
IOC dummy	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Fund family dummy	Y	Y	Y	N	N	Y	Y	Y	Y	Y
Fund family controls	N	N	N	Y	Y	N	N	N	N	N
Obs.	257174	262061	258749	257247	257247	257174	220285	220285	220285	220285
Adj. RSq.	0.1159	0.0597	0.1023	0.1106	0.1080	0.1158	0.1177	0.1177	0.1178	0.1178

Panel B: Style-adjusted CAPM alphas

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Female	-0.0001	-0.0001	-0.0001	-0.0000	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
	(-1.06)	(-1.03)	(-1.18)	(-0.43)	(-0.69)	(-1.06)	(-1.07)	(-0.73)	(-1.15)	(-1.04)
Time in industry	.	.	.	.	.	.	.	.	.	-0.0000
	.	.	.	.	.	.	.	.	.	(-1.11)
Time in industry^2	.	.	.	.	.	.	.	.	.	0.0000
	.	.	.	.	.	.	.	.	.	(0.29)
Foreign	.	.	.	.	.	.	0.0001	0.0001	0.0000	-0.0001
	.	.	.	.	.	.	(0.31)	(0.69)	(0.31)	(-0.32)
Foreign×female	.	.	.	.	.	.	.	-0.0008	.	.
	.	.	.	.	.	.	.	(-1.51)	.	.
MBA	.	.	.	.	.	.	0.0001	0.0001	0.0001	0.0001
	.	.	.	.	.	.	(0.84)	(0.87)	(0.85)	(0.94)
MA	.	.	.	.	.	.	0.0000	0.0000	0.0000	0.0000
	.	.	.	.	.	.	(0.11)	(0.07)	(0.14)	(0.20)
PhD	.	.	.	.	.	.	-0.0001	-0.0001	-0.0001	-0.0001
	.	.	.	.	.	.	(-0.54)	(-0.52)	(-0.59)	(-0.57)
Other degree	.	.	.	.	.	.	.	.	.	0.0007
	.	.	.	.	.	.	.	.	.	(2.86)
CFA	.	.	.	.	.	.	.	.	.	0.0000
	.	.	.	.	.	.	.	.	.	(0.58)
Top school	.	.	.	.	.	.	.	.	.	0.0000
	.	.	.	.	.	.	.	.	.	(0.01)
Time at the fund	.	.	.	.	.	.	.	.	-0.0000	.
	.	.	.	.	.	.	.	.	(-1.93)	.
Fund flow controls	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Fund return controls	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
Fund controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Month dummy	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Fund family dummy	Y	Y	Y	N	N	Y	Y	Y	Y	Y
Fund family controls	N	N	N	Y	Y	N	N	N	N	N
Obs.	257319	262669	258901	257392	257392	257319	220412	220412	220412	220412
Adj. RSq.	0.0189	0.0187	0.0112	0.0123	0.0120	0.0189	0.0206	0.0206	0.0206	0.0206

Table IV
Explaining manager firings

This table presents the results of the monthly-frequency linear probability regressions explaining manager firings. We assume that a manager is fired when s/he permanently disappears from the mutual fund industry and is under 60 years old or has less than 30 years of fund management experience if age information is unavailable. *Alpha* and *FFlow* are the managers' CAPM alpha and fund flow ranks, 1 through 10, computed each month within each investment objective code based on the 12-month trailing alpha and fund flows; subscripts $t-1$, $t-2$, and $t-3$ indicate that the variables were lagged by 1, 2, and 3 years respectively. When an investment objective category contains fewer than 10 funds in a particular month, the ranks are set to missing values. When a manager manages more than one fund, the manager's fund-level ranking are aggregated over all the fund s/he manages by weighting the individual fund rankings by the fraction of the fund management responsibilities that the manager has, computed as $\frac{1}{number\ of\ co\text{-}managers}$. Index funds are excluded from the analysis. *Early-career* is a dummy variable equal to one if a manager has been managing funds between 3 and 10 years, and to zero otherwise; *Late-career* is a dummy variable equal to one if a manager has been managing funds for over 20 years, and to zero otherwise. *Foreign* dummy is set to one if a manager has school information available and has attended a foreign college or university (excluding those in Canada), and to zero otherwise. *Foreign incl.guess)* dummy also includes a guess of whether a manager is of a foreign origin for records with missing school information. The guesses are made based on the first and last names of the manager. *Advanced degree* is set to one if a manager has school information available and has obtained an MBA, MA, PhD or Other degree, and zero otherwise. *Top school* equals to one if a manager has available school information and attended a top-ten-ranked college, university or MBA program, or an Ivy League school for at least one of the degrees, and to zero otherwise. *Foreign*, *Adv. degree*, and *Top school* dummies are set to missing values for the records with missing school information. α *dummy* is computed as follows. We first compute the alpa rank as descried above, but use the 36-month trailing alpha. α *dummy* is set to one if the rank is 1 or 2 (the bottom 20% of performance) and to zero otherwise. *FFlow dummy* is computed similarly. We first compute the fund flow as described above, but use the 36-month trailing average fund flow. *FFlow dummy* is set to one if the rank is 1 or 2 (the bottom 20% of fund flows) and to zero otherwise. Controls include the standard deviation of the returns of the manager' portfolio over the trailing 36 months, the number of funds that the manager manages, the number of funds squared, and the total TNA that the manager manages (when manager co-manages a fund, we divide the fund's TNA by the number of co-managers). In Panel A, subtables A1-A3, regressions are presented by the years of manager experience. In Panel B, subtables B1-B3, more detailed analysis is provided, and in these panels only managers with at least 36 months of uninterrupted fund management history are considered. Subpanels A1 and B1 presents the results for all managers, Subpanels A2 and B2 present results only for managers who are sole managers and have no concurrent co-management responsibilities. Panels A3 adn B3 present results only for co-managers who have no concurrent sole-management responsibilities. Standard errors, clustered by manager and year, and t-statistics are reported in parentheses. The sample period January 1992 – January 2017.

Panel A: Conditioning on years of experience

A1: All managers

	Years of fund management experience									
	All observations				$\geq$ 1 year		$\geq$ 5 years		$\geq$ 10 years	
Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Female	0.0028	0.0029	0.0024	0.0024	0.0027	0.0023	0.0033	0.0025	0.0029	0.0024
	(11.60)	(12.05)	(9.95)	(9.95)	(11.33)	(9.42)	(10.98)	(8.03)	(6.90)	(5.52)
Foreign (incl.guess)	.	.	.	-0.0001	.	-0.0001	.	0.0002	.	0.0003
	.	.	.	(-0.23)	.	(-0.45)	.	(0.57)	.	(0.59)
$Alpha_{t-1}$	.	.	.	.	.	-0.0010	.	-0.0009	.	-0.0007
	.	.	.	.	.	(-10.75)	.	(-7.39)	.	(-4.50)
$Alpha_{t-2}$	.	.	.	.	.	.	.	-0.0005	.	-0.0006
	.	.	.	.	.	.	.	(-3.81)	.	(-3.65)
$Alpha_{t-3}$	.	.	.	.	.	.	.	-0.0003	.	-0.0001
	.	.	.	.	.	.	.	(-2.60)	.	(-0.79)
$FFlow_{t-1}$	.	.	.	.	.	-0.0010	.	-0.0008	.	-0.0007
	.	.	.	.	.	(-18.44)	.	(-8.82)	.	(-6.09)
$FFlow_{t-2}$	.	.	.	.	.	.	.	-0.0000	.	0.0001
	.	.	.	.	.	.	.	(-0.23)	.	(0.68)
$FFlow_{t-3}$	.	.	.	.	.	.	.	-0.0001	.	-0.0001
	.	.	.	.	.	.	.	(-0.63)	.	(-1.28)
Stdev	.	.	.	.	.	-0.0215	.	-0.0249	.	0.0053
	.	.	.	.	.	(-1.75)	.	(-1.32)	.	(0.21)
Manager TNA	.	.	-0.0021	-0.0021	.	-0.0020	.	-0.0022	.	-0.0022
	.	.	(-39.20)	(-39.13)	.	(-37.71)	.	(-29.80)	.	(-21.35)
Num. funds managed	.	.	-0.0002	-0.0002	.	-0.0002	.	-0.0002	.	-0.0001
	.	.	(-8.54)	(-8.54)	.	(-8.53)	.	(-6.60)	.	(-4.06)
IOC trend	.	.	0.0001	0.0001	.	0.0022	.	0.0024	.	0.0004
	.	.	(0.19)	(0.20)	.	(3.11)	.	(2.33)	.	(0.32)
Exp. ratio	.	.	-0.0001	-0.0001	.	-0.0001	.	-0.0002	.	-0.0002
	.	.	(-1.53)	(-1.53)	.	(-2.45)	.	(-3.65)	.	(-2.16)
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fund family dummy	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	929946	929946	921168	921168	923266	914011	579427	509266	295196	262692
Adj. RSq.	0.0016	0.0003	0.0042	0.0040	0.0016	0.0046	0.0020	0.0055	0.0039	0.0063

A2: Only sole managers

	Years of fund management experience									
	All observations				$\geq$ 1 year		$\geq$ 5 years		$\geq$ 10 years	
Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Female	0.0021	0.0020	0.0016	0.0016	0.0021	0.0014	0.0013	-0.0001	0.0004	-0.0006
	(3.77)	(3.74)	(2.91)	(2.91)	(3.81)	(2.59)	(1.78)	(-0.17)	(0.37)	(-0.51)
Foreign (incl.guess)	.	.	.	-0.0002	.	-0.0000	.	-0.0007	.	0.0012
	.	.	.	(-0.23)	.	(-0.05)	.	(-0.70)	.	(0.83)
$Alpha_{t-1}$	.	.	.	.	.	-0.0010	.	-0.0012	.	-0.0019
	.	.	.	.	.	(-5.24)	.	(-4.38)	.	(-4.95)
$Alpha_{t-2}$	.	.	.	.	.	.	.	-0.0006	.	-0.0011
	.	.	.	.	.	.	.	(-2.20)	.	(-2.74)
$Alpha_{t-3}$	.	.	.	.	.	.	.	-0.0003	.	-0.0003
	.	.	.	.	.	.	.	(-1.16)	.	(-0.64)
$FFlow_{t-1}$	.	.	.	.	.	-0.0009	.	-0.0007	.	-0.0006
	.	.	.	.	.	(-7.55)	.	(-3.47)	.	(-1.97)
$FFlow_{t-2}$	.	.	.	.	.	.	.	-0.0001	.	-0.0000
	.	.	.	.	.	.	.	(-0.25)	.	(-0.08)
$FFlow_{t-3}$	.	.	.	.	.	.	.	-0.0004	.	-0.0005
	.	.	.	.	.	.	.	(-2.09)	.	(-1.86)
Stdev	.	.	.	.	.	-0.0316	.	-0.0513	.	-0.0891
	.	.	.	.	.	(-1.12)	.	(-1.07)	.	(-1.31)
Manager TNA	.	.	-0.0009	-0.0009	.	-0.0009	.	-0.0011	.	-0.0019
	.	.	(-7.07)	(-7.07)	.	(-7.01)	.	(-5.91)	.	(-6.38)
Num. funds managed	.	.	-0.0005	-0.0005	.	-0.0006	.	-0.0006	.	-0.0006
	.	.	(-4.00)	(-4.01)	.	(-4.27)	.	(-3.82)	.	(-2.55)
IOC trend	.	.	-0.0023	-0.0023	.	-0.0008	.	0.0034	.	0.0001
	.	.	(-1.66)	(-1.65)	.	(-0.56)	.	(1.53)	.	(0.04)
Exp. ratio	.	.	0.0000	0.0000	.	-0.0000	.	-0.0001	.	-0.0001
	.	.	(0.04)	(0.03)	.	(-0.10)	.	(-1.13)	.	(-0.26)
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fund family dummy	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	130670	130670	129359	129359	129852	128430	81388.0	69468.0	38479.0	34119.0
Adj. RSq.	0.0041	0.0009	0.0050	0.0046	0.0041	0.0054	0.0058	0.0092	0.0102	0.0141

A3: Only co-managers

	Years of fund management experience									
	All observations				≥ 1 year		≥ 5 years		≥ 10 years	
Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Female	0.0019	0.0019	0.0018	0.0018	0.0020	0.0018	0.0024	0.0022	0.0027	0.0025
	(7.27)	(7.35)	(6.69)	(6.71)	(7.35)	(6.75)	(7.60)	(6.77)	(5.93)	(5.55)
Foreign (incl.guess)	.	.	.	-0.0004	.	-0.0004	.	-0.0002	.	-0.0004
	.	.	.	(-1.32)	.	(-1.41)	.	(-0.47)	.	(-0.71)
$Alpha_{t-1}$	.	.	.	.	.	-0.0008	.	-0.0008	.	-0.0007
	.	.	.	.	.	(-7.02)	.	(-5.67)	.	(-3.90)
$Alpha_{t-2}$	.	.	.	.	.	.	.	-0.0001	.	-0.0001
	.	.	.	.	.	.	.	(-1.03)	.	(-0.58)
$Alpha_{t-3}$	.	.	.	.	.	.	.	0.0000	.	0.0002
	.	.	.	.	.	.	.	(0.30)	.	(0.96)
$FFlow_{t-1}$	.	.	.	.	.	-0.0005	.	-0.0003	.	-0.0005
	.	.	.	.	.	(-8.17)	.	(-3.03)	.	(-3.67)
$FFlow_{t-2}$	.	.	.	.	.	.	.	-0.0001	.	0.0001
	.	.	.	.	.	.	.	(-0.75)	.	(0.90)
$FFlow_{t-3}$	.	.	.	.	.	.	.	-0.0002	.	-0.0002
	.	.	.	.	.	.	.	(-1.72)	.	(-1.73)
Stdev	.	.	.	.	.	-0.0471	.	-0.0433	.	0.0170
	.	.	.	.	.	(-3.32)	.	(-2.10)	.	(0.62)
Manager TNA	.	.	-0.0011	-0.0011	.	-0.0010	.	-0.0008	.	-0.0008
	.	.	(-15.15)	(-15.19)	.	(-14.35)	.	(-9.06)	.	(-6.32)
Num. funds managed	.	.	-0.0000	-0.0000	.	-0.0000	.	-0.0001	.	-0.0000
	.	.	(-1.67)	(-1.71)	.	(-2.63)	.	(-2.82)	.	(-1.49)
IOC trend	.	.	0.0016	0.0016	.	0.0034	.	0.0025	.	0.0020
	.	.	(1.74)	(1.79)	.	(3.72)	.	(2.10)	.	(1.19)
Exp. ratio	.	.	-0.0001	-0.0001	.	-0.0001	.	0.0000	.	0.0000
	.	.	(-1.51)	(-1.52)	.	(-1.83)	.	(0.11)	.	(0.22)
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fund family dummy	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	432733	432733	430385	430385	430450	427981	292104	264479	156559	142719
Adj. RSq.	0.0036	0.0002	0.0043	0.0043	0.0036	0.0047	0.0037	0.0049	0.0053	0.0061

Panel B: Detailed analysis of managers with at least 3 years of fund management experience

B1: All managers

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Female	0.0025	0.0018	0.0019	0.0018	0.0018	0.0017	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
	(8.72)	(5.69)	(6.11)	(3.32)	(5.73)	(5.59)	(4.76)	(4.75)	(4.76)	(4.76)	(4.73)	(4.72)	(4.72)
Early career	.	.	-0.0016	-0.0016	.	.	.	.	.	.	.	.	.
	.	.	(-7.16)	(-6.76)	.	.	.	.	.	.	.	.	.
Late career	.	.	0.0023	0.0022	.	.	.	.	.	.	.	.	.
	.	.	(5.69)	(5.11)	.	.	.	.	.	.	.	.	.
Female×Early career	.	.	.	-0.0000	.	.	.	.	.	.	.	.	.
	.	.	.	(-0.05)	.	.	.	.	.	.	.	.	.
Female×Late career	.	.	.	0.0021	.	.	.	.	.	.	.	.	.
	.	.	.	(1.39)	.	.	.	.	.	.	.	.	.
Female× Low Alpha dummy$_{t-1}$	.	.	.	.	-0.0469	.	.	.	.	.	.	.	.
	.	.	.	.	(-1.83)	.	.	.	.	.	.	.	.
Female×Low FFlow dummy$_{t-1}$	.	.	.	.	.	0.0012	.	.	.	.	.	.	.
	.	.	.	.	.	(0.44)	.	.	.	.	.	.	.
Foreign	.	.	.	.	.	.	-0.0002	-0.0002	-0.0002	-0.0002	-0.0002	-0.0002	-0.0002
	.	.	.	.	.	.	(-0.63)	(-0.61)	(-0.63)	(-0.64)	(-0.54)	(-0.60)	(-0.60)
Top school	.	.	.	.	.	.	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003
	.	.	.	.	.	.	(1.39)	(1.39)	(1.40)	(1.40)	(1.36)	(1.36)	(1.36)
Adv. degree	.	.	.	.	.	.	-0.0002	-0.0002	-0.0002	-0.0002	-0.0002	-0.0002	-0.0002
	.	.	.	.	.	.	(-0.89)	(-0.89)	(-0.88)	(-0.87)	(-0.85)	(-0.85)	(-0.94)
Foreign × Low Alpha dummy$_{t-1}$	.	.	.	.	.	.	.	-0.0184	.	.	.	.	.
	.	.	.	.	.	.	.	(-0.85)	.	.	.	.	.
Top school × Low Alpha dummy$_{t-1}$	.	.	.	.	.	.	.	.	-0.0149	.	.	.	.
	.	.	.	.	.	.	.	.	(-0.90)	.	.	.	.
Adv. degree × Low Alpha dummy$_{t-1}$	.	.	.	.	.	.	.	.	.	-0.0259	.	.	.
	.	.	.	.	.	.	.	.	.	(-1.56)	.	.	.
Foreign × Low FFlow dummy$_{t-1}$	.	.	.	.	.	.	.	.	.	.	-0.0021	.	.
	.	.	.	.	.	.	.	.	.	.	(-0.60)	.	.
Top school × Low FFlow dummy$_{t-1}$	.	.	.	.	.	.	.	.	.	.	.	-0.0001	.
	.	.	.	.	.	.	.	.	.	.	.	(-0.03)	.
Adv. degree × Low FFlow dummy$_{t-1}$	.	.	.	.	.	.	.	.	.	.	.	.	0.0017
	.	.	.	.	.	.	.	.	.	.	.	.	(0.86)
Low Alpha dummy$_{t-1}$	.	.	.	.	0.0363	.	.	0.0037	0.0069	0.0158	.	.	.
	.	.	.	.	(5.05)	.	.	(0.41)	(0.64)	(1.24)	.	.	.
Low FFlow dummy$_{t-1}$	.	.	.	.	.	0.0054	.	.	.	.	0.0042	0.0041	0.0029
	.	.	.	.	.	(5.32)	.	.	.	.	(4.13)	(3.15)	(1.71)
Alpha$_{t-1}$	.	-0.0010	-0.0010	-0.0010	-0.0010	-0.0010	-0.0010	-0.0010	-0.0010	-0.0010	-0.0010	-0.0010	-0.0010
	.	(-8.77)	(-8.65)	(-8.66)	(-8.48)	(-8.70)	(-8.12)	(-8.10)	(-8.10)	(-8.10)	(-8.08)	(-8.08)	(-8.08)
Alpha$_{t-2}$	.	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005
	.	(-3.87)	(-3.72)	(-3.73)	(-3.84)	(-3.80)	(-4.07)	(-4.06)	(-4.08)	(-4.08)	(-4.02)	(-4.02)	(-4.02)
Alpha$_{t-3}$	.	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003
	.	(-3.60)	(-3.45)	(-3.46)	(-3.64)	(-3.57)	(-2.81)	(-2.81)	(-2.80)	(-2.80)	(-2.80)	(-2.80)	(-2.80)
FFlow$_{t-1}$	.	-0.0010	-0.0010	-0.0010	-0.0010	-0.0009	-0.0010	-0.0010	-0.0010	-0.0010	-0.0009	-0.0009	-0.0009
	.	(-11.43)	(-11.36)	(-11.36)	(-11.48)	(-10.08)	(-10.65)	(-10.66)	(-10.64)	(-10.64)	(-9.66)	(-9.66)	(-9.67)
FFlow$_{t-2}$	.	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000
	.	(-0.71)	(-0.60)	(-0.60)	(-0.68)	(-0.69)	(-0.47)	(-0.47)	(-0.48)	(-0.49)	(-0.46)	(-0.46)	(-0.46)
FFlow$_{t-3}$	.	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
	.	(-1.27)	(-0.86)	(-0.86)	(-1.27)	(-1.42)	(-0.89)	(-0.89)	(-0.89)	(-0.90)	(-1.02)	(-1.02)	(-1.02)
Controls	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fund family dummy	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	741607	631907	631907	631907	631907	631907	538453	538453	538453	538453	538453	538453	538453
Adj. RSq.	0.0016	0.0055	0.0057	0.0057	0.0056	0.0056	0.0053	0.0053	0.0053	0.0053	0.0053	0.0053	0.0053

B2: Only sole managers

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Female	0.0020	0.0004	0.0004	-0.0003	0.0004	0.0002	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004
	(2.80)	(0.48)	(0.46)	(-0.22)	(0.47)	(0.27)	(-0.49)	(-0.50)	(-0.50)	(-0.50)	(-0.49)	(-0.50)	(-0.54)
Early career	.	.	-0.0010	-0.0011	.	.	.	.	.	.	.	.	.
	.	.	(-1.71)	(-1.83)	.	.	.	.	.	.	.	.	.
Late career	.	.	0.0014	0.0015	.	.	.	.	.	.	.	.	.
	.	.	(1.18)	(1.16)	.	.	.	.	.	.	.	.	.
Female×Early career	.	.	.	0.0011	.	.	.	.	.	.	.	.	.
	.	.	.	(0.64)	.	.	.	.	.	.	.	.	.
Female×Late career	.	.	.	-0.0004	.	.	.	.	.	.	.	.	.
	.	.	.	(-0.12)	.	.	.	.	.	.	.	.	.
Female×Low Alpha dummy$_{t-1}$	.	.	.	.	0.0025	.	.	.	.	.	.	.	.
	.	.	.	.	(0.06)	.	.	.	.	.	.	.	.
Female×Low FFlow dummy$_{t-1}$	.	.	.	.	.	0.0104	.	.	.	.	.	.	.
	.	.	.	.	.	(1.83)	.	.	.	.	.	.	.
Foreign	.	.	.	.	.	.	0.0007	0.0007	0.0007	0.0007	0.0007	0.0008	0.0007
	.	.	.	.	.	.	(0.68)	(0.68)	(0.68)	(0.68)	(0.68)	(0.73)	(0.72)
Top school	.	.	.	.	.	.	0.0006	0.0006	0.0006	0.0006	0.0006	0.0005	0.0006
	.	.	.	.	.	.	(1.02)	(1.03)	(1.03)	(1.03)	(1.05)	(0.90)	(1.05)
Adv. degree	.	.	.	.	.	.	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0000
	.	.	.	.	.	.	(0.35)	(0.35)	(0.35)	(0.35)	(0.35)	(0.35)	(0.03)
Foreign × Low Alpha dummy$_{t-1}$	.	.	.	.	.	.	.	0.0000	.	.	.	.	.
	.	.	.	.	.	.	.	(0.00)	.	.	.	.	.
Top school × Low Alpha dummy$_{t-1}$	.	.	.	.	.	.	.	.	0.0024	.	.	.	.
	.	.	.	.	.	.	.	.	(0.09)	.	.	.	.
Adv. degree ×Low Alpha dummy$_{t-1}$	.	.	.	.	.	.	.	.	.	0.0024	.	.	.
	.	.	.	.	.	.	.	.	.	(0.09)	.	.	.
Foreign × Low FFlow dummy$_{t-1}$	.	.	.	.	.	.	.	.	.	.	0.0071	.	.
	.	.	.	.	.	.	.	.	.	.	(0.74)	.	.
Top school × Low FFlow dummy$_{t-1}$	.	.	.	.	.	.	.	.	.	.	.	0.0057	.
	.	.	.	.	.	.	.	.	.	.	.	(1.39)	.
Adv. degree ×Low FFlow dummy$_{t-1}$	.	.	.	.	.	.	.	.	.	.	.	.	0.0137
	.	.	.	.	.	.	.	.	.	.	.	.	(3.17)
Low Alpha dummy$_{t-1}$	.	.	.	.	-0.0096	.	.	-0.0096	-0.0113	-0.0113	.	.	.
	.	.	.	.	(-0.84)	.	.	(-0.80)	(-0.50)	(-0.50)	.	.	.
Low FFlow dummy$_{t-1}$	.	.	.	.	.	0.0035	.	.	.	.	0.0056	0.0036	-0.0033
	.	.	.	.	.	(1.64)	.	.	.	.	(2.60)	(1.32)	(-0.91)
Alpha$_{t-1}$	.	-0.0014	-0.0014	-0.0014	-0.0014	-0.0014	-0.0013	-0.0013	-0.0013	-0.0013	-0.0012	-0.0012	-0.0012
	.	(-5.12)	(-5.07)	(-5.05)	(-5.17)	(-5.11)	(-4.55)	(-4.60)	(-4.60)	(-4.60)	(-4.50)	(-4.47)	(-4.47)
Alpha$_{t-2}$	.	-0.0009	-0.0008	-0.0008	-0.0009	-0.0009	-0.0008	-0.0008	-0.0008	-0.0008	-0.0008	-0.0008	-0.0008
	.	(-3.01)	(-2.94)	(-2.93)	(-3.02)	(-3.03)	(-2.88)	(-2.89)	(-2.89)	(-2.89)	(-2.89)	(-2.88)	(-2.87)
Alpha$_{t-3}$	.	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003
	.	(-1.06)	(-1.02)	(-0.99)	(-1.05)	(-1.05)	(-0.96)	(-0.94)	(-0.95)	(-0.95)	(-0.98)	(-0.99)	(-0.97)
FFlow$_{t-1}$	.	-0.0008	-0.0008	-0.0008	-0.0008	-0.0007	-0.0008	-0.0008	-0.0008	-0.0008	-0.0007	-0.0007	-0.0007
	.	(-4.27)	(-4.23)	(-4.23)	(-4.25)	(-3.60)	(-4.03)	(-4.01)	(-4.01)	(-4.01)	(-3.33)	(-3.34)	(-3.35)
FFlow$_{t-2}$	.	-0.0001	-0.0000	-0.0000	-0.0001	-0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	.	(-0.27)	(-0.20)	(-0.19)	(-0.28)	(-0.26)	(0.41)	(0.41)	(0.41)	(0.41)	(0.46)	(0.47)	(0.43)
FFlow$_{t-3}$	.	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0006	-0.0006	-0.0006	-0.0006	-0.0007	-0.0007	-0.0006
	.	(-2.77)	(-2.64)	(-2.63)	(-2.77)	(-2.87)	(-3.28)	(-3.28)	(-3.28)	(-3.28)	(-3.42)	(-3.42)	(-3.36)
Controls	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fund family dummy	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	102646	83573.0	83573.0	83573.0	83573.0	83573.0	73038.0	73038.0	73038.0	73038.0	73038.0	73038.0	73038.0
Adj. RSq.	0.0042	0.0087	0.0088	0.0088	0.0088	0.0087	0.0077	0.0077	0.0077	0.0077	0.0077	0.0077	0.0077

B3: Only co-managers

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Female	0.0027	0.0022	0.0024	0.0029	0.0022	0.0021	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022	0.0022
	(7.57)	(5.62)	(6.13)	(4.16)	(5.66)	(5.56)	(5.31)	(5.32)	(5.32)	(5.32)	(5.29)	(5.29)	(5.29)
Early career	.	.	-0.0019	-0.0017	.	.	.	.	.	.	.	.	.
	.	.	(-6.70)	(-5.97)	.	.	.	.	.	.	.	.	.
Late career	.	.	0.0029	0.0028	.	.	.	.	.	.	.	.	.
	.	.	(5.76)	(5.26)	.	.	.	.	.	.	.	.	.
Female×Early career	.	.	.	-0.0010	.	.	.	.	.	.	.	.	.
	.	.	.	(-1.15)	.	.	.	.	.	.	.	.	.
Female×Late career	.	.	.	0.0027	.	.	.	.	.	.	.	.	.
	.	.	.	(1.41)	.	.	.	.	.	.	.	.	.
Female×Low Alpha dummy$_{t-1}$	.	.	.	.	-0.0758	.	.	.	.	.	.	.	.
	.	.	.	.	(-2.14)	.	.	.	.	.	.	.	.
Female×Low FFlow dummy$_{t-1}$	.	.	.	.	.	0.0004	.	.	.	.	.	.	.
	.	.	.	.	.	(0.11)	.	.	.	.	.	.	.
Foreign	.	.	.	.	.	.	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005
	.	.	.	.	.	.	(-1.18)	(-1.16)	(-1.18)	(-1.19)	(-1.10)	(-1.16)	(-1.17)
Top school	.	.	.	.	.	.	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004
	.	.	.	.	.	.	(1.45)	(1.45)	(1.46)	(1.45)	(1.42)	(1.49)	(1.42)
Adv. degree	.	.	.	.	.	.	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004	-0.0003
	.	.	.	.	.	.	(-1.23)	(-1.23)	(-1.22)	(-1.20)	(-1.20)	(-1.20)	(-1.14)
Foreign × Low Alpha dummy$_{t-1}$	.	.	.	.	.	.	.	-0.0331	.	.	.	.	.
	.	.	.	.	.	.	.	(-1.29)	.	.	.	.	.
Top school × Low Alpha dummy$_{t-1}$	.	.	.	.	.	.	.	.	-0.0256	.	.	.	.
	.	.	.	.	.	.	.	.	(-0.78)	.	.	.	.
Adv. degree × Low Alpha dummy$_{t-1}$	.	.	.	.	.	.	.	.	.	-0.0435	.	.	.
	.	.	.	.	.	.	.	.	.	(-1.80)	.	.	.
Foreign × Low FFlow dummy$_{t-1}$	.	.	.	.	.	.	.	.	.	.	-0.0028	.	.
	.	.	.	.	.	.	.	.	.	.	(-0.68)	.	.
Top school × Low FFlow dummy$_{t-1}$	.	.	.	.	.	.	.	.	.	.	.	-0.0018	.
	.	.	.	.	.	.	.	.	.	.	.	(-0.77)	.
Adv. degree × Low FFlow dummy$_{t-1}$	.	.	.	.	.	.	.	.	.	.	.	.	-0.0014
	.	.	.	.	.	.	.	.	.	.	.	.	(-0.56)
Low Alpha dummy$_{t-1}$	.	.	.	.	0.0635	.	.	0.0179	0.0113	0.0264	.	.	.
	.	.	.	.	(6.37)	.	.	(1.22)	(0.86)	(1.64)	.	.	.
Low FFlow dummy$_{t-1}$	.	.	.	.	.	0.0054	.	.	.	.	0.0036	0.0041	0.0043
	.	.	.	.	.	(4.34)	.	.	.	.	(2.81)	(2.58)	(2.04)
Alpha$_{t-1}$	.	-0.0011	-0.0011	-0.0011	-0.0010	-0.0011	-0.0010	-0.0010	-0.0010	-0.0010	-0.0010	-0.0010	-0.0010
	.	(-7.19)	(-7.09)	(-7.08)	(-6.88)	(-7.13)	(-6.51)	(-6.48)	(-6.48)	(-6.48)	(-6.49)	(-6.49)	(-6.49)
Alpha$_{t-2}$	.	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005
	.	(-3.17)	(-3.04)	(-3.04)	(-3.17)	(-3.10)	(-3.22)	(-3.22)	(-3.23)	(-3.23)	(-3.18)	(-3.18)	(-3.18)
Alpha$_{t-3}$	.	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004	-0.0004
	.	(-3.50)	(-3.35)	(-3.35)	(-3.54)	(-3.47)	(-2.70)	(-2.70)	(-2.70)	(-2.70)	(-2.68)	(-2.68)	(-2.68)
FFlow$_{t-1}$	.	-0.0011	-0.0011	-0.0011	-0.0011	-0.0010	-0.0011	-0.0011	-0.0011	-0.0011	-0.0010	-0.0010	-0.0010
	.	(-9.78)	(-9.77)	(-9.76)	(-9.82)	(-8.70)	(-9.25)	(-9.26)	(-9.26)	(-9.25)	(-8.56)	(-8.55)	(-8.55)
FFlow$_{t-2}$	.	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
	.	(-0.47)	(-0.42)	(-0.41)	(-0.43)	(-0.46)	(-0.41)	(-0.41)	(-0.42)	(-0.42)	(-0.41)	(-0.43)	(-0.42)
FFlow$_{t-3}$	.	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001	-0.0001
	.	(-1.14)	(-0.78)	(-0.78)	(-1.16)	(-1.25)	(-0.51)	(-0.51)	(-0.51)	(-0.51)	(-0.59)	(-0.59)	(-0.59)
Controls	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fund family dummy	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	552092	470755	470755	470755	470755	470755	395570	395570	395570	395570	395570	395570	395570
Adj. RSq.	0.0028	0.0071	0.0074	0.0074	0.0072	0.0072	0.0067	0.0067	0.0067	0.0068	0.0068	0.0068	0.0068

Table V
Explaining career advancement

This table presents the results of the monthly-frequency regressions explaining managers' career changes. A career change is set to zero in the months in which a managers received no changes in fund assignments. In the months with changes in fund assignments, this change is calculated as the change in the total number of funds under management, and if a particular fund is co-managed, the fraction of the fund management responsibilities that the manager has, computed as $\frac{1}{number\ of\ co\text{-}managers}$. We assume that a manager is retired after the age 55. *Alpha* and *FFlow* are the managers' CAPM alpha and fund flow ranks, 1 through 10, computed each month within each investment objective code based on the 12-month trailing alpha and fund flows; subscripts $t-1$, $t-2$, and $t-3$ indicate that the variables were lagged by 1, 2, and 3 years respectively. When an investment objective category contains fewer than 10 funds in a particular month, the ranks are set to missing values. When a manager manages more than one fund, the manager's fund-level ranking are aggregated over all the fund s/he manages by weighting the individual fund rankings by the fraction of the fund management responsibilities that the manager has, computed as $\frac{1}{number\ of\ co\text{-}managers}$. Index funds are excluded from the analysis. *Early-career* is a dummy variable equal to one if a manager has been managing funds between for under 10 years, and to zero otherwise; *Late-career* is a dummy variable equal to one if a manager has been managing funds between 20 and 30 years, and to zero otherwise. *Foreign* dummy is set to one if a manager has school information available and has attended a foreign college or university (excluding those in Canada), and to zero otherwise. *Foreign incl.guess)* dummy also includes a guess of whether a manager is of a foreign origin for records with missing school information. The guesses are made based on the first and last names of the manager. *Advanced degree* is set to one if a manager has school information available and has obtained an MBA, MA, PhD or Other degree, and zero otherwise. *Top school* equals to one if a manager has available school information and attended a top-ten-ranked college, university or MBA program, or an Ivy League school for at least one of the degrees, and to zero otherwise. *Foreign*, *Adv. degree*, and *Top school* dummies are set to missing values for the records with missing school information. α *dummy* is computed as follows. We first compute the alpa rank as descried above, but use the 36-month trailing alpha. α *dummy* is set to one if the rank is 1 or 2 (the bottom 20% of performance) and to zero otherwise. *FFlow dummy* is computed similarly. We first compute the fund flow as described above, but use the 36-month trailing average fund flow. *FFlow dummy* is set to one if the rank is 1 or 2 (the bottom 20% of fund flows) and to zero otherwise. Controls include the standard deviation of the returns of the manager' portfolio over the trailing 36 months, the number of funds that the manager manages, the number of funds squared, and the total TNA that the manager manages (when manager co-manages a fund, we divide the fund's TNA by the number of co-managers). In Panel A, subtables A1-A3, regressions are presented by the years of manager experience. In Panel B, subtables B1-B3, more detailed analysis is provided, and in these panels only managers with at least 36 months of uninterrupted fund management history are considered. Subpanels A1 and B1 presents the results for all managers, Subpanels A2 and B2 present results only for managers who are sole managers and have no concurrent co-management responsibilities. Panels A3 adn B3 present results only for co-managers who have no concurrent sole-management responsibilities. Standard errors, clustered by manager and year, and t-statistics are reported in parentheses. The sample period January 1992 – January 2017.

Panel A: Conditioning on years of experience

A1: All managers

	Years of fund management experience									
	All observations				$\geq$ 1 year		$\geq$ 5 years		$\geq$ 10 years	
Female	-0.0041	-0.0042	-0.0047	-0.0047	-0.0040	-0.0044	-0.0034	-0.0029	-0.0014	-0.0011
	(-3.44)	(-3.54)	(-3.92)	(-3.92)	(-3.28)	(-3.61)	(-3.03)	(-2.57)	(-0.88)	(-0.75)
Foreign (incl.guess)	.	.	.	-0.0006	.	-0.0005	.	-0.0017	.	-0.0023
	.	.	.	(-0.49)	.	(-0.37)	.	(-1.40)	.	(-1.37)
$Alpha_{t-1}$	.	.	.	.	.	0.0017	.	0.0021	.	0.0030
	.	.	.	.	.	(3.79)	.	(4.82)	.	(5.53)
$Alpha_{t-2}$	.	.	.	.	.	.	.	0.0023	.	0.0016
	.	.	.	.	.	.	.	(5.17)	.	(2.77)
$Alpha_{t-3}$	.	.	.	.	.	.	.	0.0006	.	0.0001
	.	.	.	.	.	.	.	(1.46)	.	(0.13)
$FFlow_{t-1}$	.	.	.	.	.	0.0026	.	0.0021	.	0.0023
	.	.	.	.	.	(9.84)	.	(6.68)	.	(5.58)
$FFlow_{t-2}$	.	.	.	.	.	.	.	0.0009	.	0.0011
	.	.	.	.	.	.	.	(2.52)	.	(2.37)
$FFlow_{t-3}$	.	.	.	.	.	.	.	-0.0004	.	-0.0002
	.	.	.	.	.	.	.	(-1.23)	.	(-0.60)
Stdev	.	.	.	.	.	0.1068	.	0.3029	.	0.3286
	.	.	.	.	.	(1.73)	.	(4.53)	.	(3.85)
Manager TNA	.	.	-0.0013	-0.0013	.	-0.0013	.	-0.0006	.	-0.0000
	.	.	(-4.73)	(-4.76)	.	(-4.87)	.	(-2.44)	.	(-0.10)
Num. funds managed	.	.	-0.0009	-0.0009	.	-0.0008	.	-0.0005	.	-0.0005
	.	.	(-8.70)	(-8.71)	.	(-7.88)	.	(-5.27)	.	(-4.73)
IOC trend	.	.	0.0119	0.0119	.	0.0064	.	0.0033	.	0.0059
	.	.	(3.30)	(3.32)	.	(1.76)	.	(0.92)	.	(1.23)
Exp. ratio	.	.	-0.0013	-0.0013	.	-0.0012	.	-0.0007	.	-0.0008
	.	.	(-6.08)	(-6.09)	.	(-5.74)	.	(-3.67)	.	(-2.94)
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fund family dummy	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	929946	929946	921168	921168	923266	914011	579427	509266	295196	262692
Adj. RSq.	0.0011	0.0024	0.0032	0.0013	0.0011	0.0014	0.0020	0.0029	0.0029	0.0043

A1: Only sole managers

	Years of fund management experience									
	All observations				≥ 1 year		≥ 5 years		≥ 10 years	
Female	-0.0035	-0.0028	-0.0031	-0.0031	-0.0035	-0.0024	-0.0019	-0.0007	-0.0017	-0.0009
	(-2.97)	(-2.55)	(-2.62)	(-2.63)	(-2.96)	(-2.07)	(-1.33)	(-0.44)	(-0.77)	(-0.40)
Foreign (incl.guess)	.	.	.	-0.0008	.	-0.0011	.	-0.0006	.	-0.0027
	.	.	.	(-0.58)	.	(-0.79)	.	(-0.30)	.	(-0.95)
$Alpha_{t-1}$	.	.	.	.	.	0.0023	.	0.0022	.	0.0035
	.	.	.	.	.	(5.60)	.	(4.13)	.	(4.59)
$Alpha_{t-2}$	.	.	.	.	.	.	.	0.0011	.	0.0016
	.	.	.	.	.	.	.	(1.88)	.	(2.05)
$Alpha_{t-3}$	.	.	.	.	.	.	.	0.0021	.	0.0021
	.	.	.	.	.	.	.	(3.89)	.	(2.76)
$FFlow_{t-1}$	.	.	.	.	.	0.0020	.	0.0018	.	0.0016
	.	.	.	.	.	(7.97)	.	(4.60)	.	(2.92)
$FFlow_{t-2}$	.	.	.	.	.	.	.	-0.0004	.	-0.0002
	.	.	.	.	.	.	.	(-0.81)	.	(-0.35)
$FFlow_{t-3}$	.	.	.	.	.	.	.	0.0003	.	0.0006
	.	.	.	.	.	.	.	(0.88)	.	(1.15)
Stdev	.	.	.	.	.	0.2566	.	0.2260	.	0.2700
	.	.	.	.	.	(4.24)	.	(2.34)	.	(2.03)
Manager TNA	.	.	0.0015	0.0015	.	0.0016	.	0.0021	.	0.0026
	.	.	(5.56)	(5.51)	.	(5.74)	.	(5.38)	.	(4.43)
Num. funds managed	.	.	-0.0016	-0.0016	.	-0.0013	.	-0.0013	.	-0.0014
	.	.	(-5.92)	(-5.94)	.	(-4.54)	.	(-3.95)	.	(-2.94)
IOC trend	.	.	0.0044	0.0045	.	0.0012	.	-0.0016	.	0.0036
	.	.	(1.49)	(1.51)	.	(0.38)	.	(-0.35)	.	(0.53)
Exp. ratio	.	.	-0.0001	-0.0001	.	-0.0002	.	-0.0000	.	-0.0002
	.	.	(-0.47)	(-0.48)	.	(-0.78)	.	(-0.16)	.	(-0.42)
Fund family dummy	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	130670	130670	129359	129359	129852	128430	81388.0	69468.0	38479.0	34119.0
Adj. RSq.	0.0055	0.0088	0.0119	0.0058	0.0055	0.0069	0.0073	0.0099	0.0102	0.0137
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

A3: Only co-managers

	Years of fund management experience									
	All observations				$\geq$ 1 year		$\geq$ 5 years		$\geq$ 10 years	
Female	-0.0031	-0.0031	-0.0030	-0.0030	-0.0030	-0.0028	-0.0028	-0.0015	-0.0034	-0.0017
	(-3.35)	(-3.42)	(-3.23)	(-3.23)	(-3.19)	(-2.98)	(-2.34)	(-1.23)	(-2.03)	(-1.04)
Foreign (incl.guess)	.	.	.	0.0003	.	0.0004	.	0.0001	.	-0.0010
	.	.	.	(0.30)	.	(0.45)	.	(0.09)	.	(-0.54)
$Alpha_{t-1}$	.	.	.	.	.	0.0015	.	0.0018	.	0.0021
	.	.	.	.	.	(4.05)	.	(3.64)	.	(3.27)
$Alpha_{t-2}$	.	.	.	.	.	.	.	0.0025	.	0.0017
	.	.	.	.	.	.	.	(5.01)	.	(2.66)
$Alpha_{t-3}$	.	.	.	.	.	.	.	-0.0004	.	-0.0004
	.	.	.	.	.	.	.	(-0.74)	.	(-0.65)
$FFlow_{t-1}$	.	.	.	.	.	0.0035	.	0.0032	.	0.0033
	.	.	.	.	.	(15.72)	.	(8.29)	.	(6.86)
$FFlow_{t-2}$	.	.	.	.	.	.	.	0.0004	.	0.0004
	.	.	.	.	.	.	.	(1.05)	.	(0.64)
$FFlow_{t-3}$	.	.	.	.	.	.	.	0.0000	.	-0.0003
	.	.	.	.	.	.	.	(0.05)	.	(-0.71)
Stdev	.	.	.	.	.	0.1472	.	0.2376	.	0.1421
	.	.	.	.	.	(2.95)	.	(3.14)	.	(1.48)
Manager TNA	.	.	0.0010	0.0010	.	0.0008	.	0.0009	.	0.0019
	.	.	(4.03)	(4.04)	.	(3.11)	.	(2.71)	.	(4.32)
Num. funds managed	.	.	-0.0004	-0.0004	.	-0.0004	.	-0.0003	.	-0.0005
	.	.	(-6.45)	(-6.44)	.	(-5.48)	.	(-3.20)	.	(-4.51)
IOC trend	.	.	0.0120	0.0119	.	0.0029	.	0.0023	.	0.0036
	.	.	(3.77)	(3.75)	.	(0.90)	.	(0.53)	.	(0.61)
Exp. ratio	.	.	-0.0003	-0.0003	.	-0.0001	.	-0.0002	.	-0.0003
	.	.	(-1.51)	(-1.51)	.	(-0.67)	.	(-0.74)	.	(-0.93)
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fund family dummy	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	432733	432733	430385	430385	430450	427981	292104	264479	156559	142719
Adj. RSq.	0.0037	0.0106	0.0123	0.0042	0.0036	0.0046	0.0039	0.0057	0.0060	0.0091

Panel B: Detailed analysis of managers with at least 3 years of fund management experience

B1: All managers

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Female	-0.0035	-0.0029	-0.0031	-0.0023	-0.0060	-0.0013	-0.0027	-0.0027	-0.0027	-0.0027	-0.0027	-0.0027	-0.0027
	(-3.56)	(-2.97)	(-3.10)	(-1.32)	(-1.17)	(-0.43)	(-2.47)	(-2.46)	(-2.47)	(-2.47)	(-2.47)	(-2.46)	(-2.47)
Early career	.	.	0.0028	0.0029	.	.	.	.	.	.	.	.	.
	.	.	(3.91)	(3.91)	.	.	.	.	.	.	.	.	.
Late career	.	.	-0.0001	-0.0003	.	.	.	.	.	.	.	.	.
	.	.	(-0.11)	(-0.23)	.	.	.	.	.	.	.	.	.
Female×Early career	.	.	.	-0.0014	.	.	.	.	.	.	.	.	.
	.	.	.	(-0.66)	.	.	.	.	.	.	.	.	.
Female×Late career	.	.	.	0.0028	.	.	.	.	.	.	.	.	.
	.	.	.	(0.59)	.	.	.	.	.	.	.	.	.
Female× $Alpha_{t-1}$	.	.	.	.	0.0007	.	.	.	.	.	.	.	.
	.	.	.	.	(0.61)	.	.	.	.	.	.	.	.
Female×$FFlow_{t-1}$	.	.	.	.	.	-0.0004	.	.	.	.	.	.	.
	.	.	.	.	.	(-0.62)	.	.	.	.	.	.	.
Foreign	.	.	.	.	.	.	-0.0026	-0.0075	-0.0026	-0.0026	-0.0057	-0.0026	-0.0026
	.	.	.	.	.	.	(-2.12)	(-1.22)	(-2.12)	(-2.14)	(-1.61)	(-2.11)	(-2.12)
Top school	.	.	.	.	.	.	0.0013	0.0013	0.0003	0.0013	0.0013	0.0027	0.0013
	.	.	.	.	.	.	(1.73)	(1.72)	(0.09)	(1.73)	(1.71)	(1.29)	(1.74)
Adv. degree	.	.	.	.	.	.	0.0001	0.0001	0.0001	-0.0055	0.0001	0.0001	0.0007
	.	.	.	.	.	.	(0.14)	(0.13)	(0.14)	(-1.38)	(0.13)	(0.15)	(0.29)
Foreign × $Alpha_{t-1}$	.	.	.	.	.	.	.	0.0011	.	.	.	.	.
	.	.	.	.	.	.	.	(0.81)	.	.	.	.	.
Top school × $Alpha_{t-1}$	.	.	.	.	.	.	.	.	0.0002	.	.	.	.
	.	.	.	.	.	.	.	.	(0.28)	.	.	.	.
Adv. degree × $Alpha_{t-1}$	.	.	.	.	.	.	.	.	.	0.0012	.	.	.
	.	.	.	.	.	.	.	.	.	(1.44)	.	.	.
Foreign × $FFlow_{t-1}$	.	.	.	.	.	.	.	.	.	.	0.0007	.	.
	.	.	.	.	.	.	.	.	.	.	(0.94)	.	.
Top school × $FFlow_{t-1}$	.	.	.	.	.	.	.	.	.	.	.	-0.0003	.
	.	.	.	.	.	.	.	.	.	.	.	(-0.70)	.
Adv. degree × $FFlow_{t-1}$	.	.	.	.	.	.	.	.	.	.	.	.	-0.0001
	.	.	.	.	.	.	.	.	.	.	.	.	(-0.26)
$Alpha_{t-1}$	.	0.0020	0.0019	0.0019	0.0019	0.0020	0.0021	0.0020	0.0020	0.0013	0.0021	0.0021	0.0021
	.	(5.15)	(5.09)	(5.09)	(4.68)	(5.14)	(5.17)	(4.72)	(3.89)	(1.73)	(5.17)	(5.18)	(5.17)
$Alpha_{t-2}$	.	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019	0.0019
	.	(4.92)	(4.85)	(4.85)	(4.91)	(4.91)	(4.58)	(4.58)	(4.58)	(4.59)	(4.59)	(4.58)	(4.58)
$Alpha_{t-3}$	.	0.0006	0.0006	0.0006	0.0006	0.0007	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
	.	(1.74)	(1.69)	(1.68)	(1.74)	(1.75)	(1.48)	(1.48)	(1.48)	(1.49)	(1.48)	(1.48)	(1.48)
$FFlow_{t-1}$	.	0.0022	0.0022	0.0022	0.0022	0.0022	0.0019	0.0019	0.0019	0.0019	0.0018	0.0020	0.0020
	.	(7.73)	(7.71)	(7.71)	(7.74)	(7.63)	(6.28)	(6.28)	(6.27)	(6.26)	(5.88)	(5.71)	(4.34)
$FFlow_{t-2}$	.	0.0009	0.0009	0.0009	0.0009	0.0009	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
	.	(2.77)	(2.72)	(2.73)	(2.77)	(2.77)	(3.00)	(2.99)	(3.00)	(3.00)	(3.00)	(3.01)	(3.00)
$FFlow_{t-3}$	.	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003	-0.0003
	.	(-1.15)	(-1.32)	(-1.32)	(-1.15)	(-1.15)	(-0.90)	(-0.90)	(-0.90)	(-0.89)	(-0.90)	(-0.90)	(-0.90)
Controls	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fund family dummy	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	741607	631907	631907	631907	631907	631907	538453	538453	538453	538453	538453	538453	538453
Adj. RSq.	0.0017	0.0027	0.0028	0.0028	0.0027	0.0027	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029	0.0029

B2: Only sole managers

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Female	-0.0032	-0.0015	-0.0016	-0.0014	-0.0033	-0.0023	-0.0010	-0.0011	-0.0010	-0.0010	-0.0010	-0.0010	-0.0010
	(-2.47)	(-1.05)	(-1.08)	(-0.55)	(-0.49)	(-0.60)	(-0.67)	(-0.69)	(-0.64)	(-0.66)	(-0.66)	(-0.67)	(-0.67)
Early career	.	.	0.0007	0.0008	.	.	.	.	.	.	.	.	.
	.	.	(0.67)	(0.69)	.	.	.	.	.	.	.	.	.
Late career	.	.	0.0020	0.0016	.	.	.	.	.	.	.	.	.
	.	.	(0.92)	(0.69)	.	.	.	.	.	.	.	.	.
Female×Early career	.	.	.	-0.0004	.	.	.	.	.	.	.	.	.
	.	.	.	(-0.14)	.	.	.	.	.	.	.	.	.
Female×Late career	.	.	.	0.0025	.	.	.	.	.	.	.	.	.
	.	.	.	(0.40)	.	.	.	.	.	.	.	.	.
Female× $Alpha_{t-1}$	.	.	.	.	0.0004	.	.	.	.	.	.	.	.
	.	.	.	.	(0.27)	.	.	.	.	.	.	.	.
Female×$FFlow_{t-1}$	.	.	.	.	.	0.0002	.	.	.	.	.	.	.
	.	.	.	.	.	(0.22)	.	.	.	.	.	.	.
Foreign	.	.	.	.	.	.	-0.0018	-0.0173	-0.0019	-0.0018	-0.0030	-0.0019	-0.0020
	.	.	.	.	.	.	(-0.93)	(-2.02)	(-0.97)	(-0.95)	(-0.58)	(-0.97)	(-1.02)
Top school	.	.	.	.	.	.	-0.0001	-0.0001	-0.0127	-0.0001	-0.0001	-0.0026	-0.0001
	.	.	.	.	.	.	(-0.10)	(-0.12)	(-2.74)	(-0.08)	(-0.11)	(-0.96)	(-0.13)
Adv. degree	.	.	.	.	.	.	-0.0006	-0.0006	-0.0005	-0.0087	-0.0006	-0.0006	-0.0048
	.	.	.	.	.	.	(-0.50)	(-0.51)	(-0.43)	(-1.72)	(-0.51)	(-0.48)	(-1.62)
Foreign × $Alpha_{t-1}$	.	.	.	.	.	.	.	0.0034	.	.	.	.	.
	.	.	.	.	.	.	.	(1.86)	.	.	.	.	.
Top school × $Alpha_{t-1}$	.	.	.	.	.	.	.	.	0.0027	.	.	.	.
	.	.	.	.	.	.	.	.	(2.80)	.	.	.	.
Adv. degree × $Alpha_{t-1}$	.	.	.	.	.	.	.	.	.	0.0018	.	.	.
	.	.	.	.	.	.	.	.	.	(1.65)	.	.	.
Foreign × $FFlow_{t-1}$	.	.	.	.	.	.	.	.	.	.	0.0003	.	.
	.	.	.	.	.	.	.	.	.	.	(0.26)	.	.
Top school × $FFlow_{t-1}$	.	.	.	.	.	.	.	.	.	.	.	0.0006	.
	.	.	.	.	.	.	.	.	.	.	.	(1.01)	.
Adv. degree × $FFlow_{t-1}$	.	.	.	.	.	.	.	.	.	.	.	.	0.0010
	.	.	.	.	.	.	.	.	.	.	.	.	(1.55)
$Alpha_{t-1}$	.	0.0023	0.0023	0.0023	0.0023	0.0023	0.0021	0.0019	0.0010	0.0008	0.0021	0.0021	0.0021
	.	(4.54)	(4.52)	(4.51)	(4.18)	(4.54)	(4.10)	(3.49)	(1.49)	(0.90)	(4.09)	(4.07)	(4.09)
$Alpha_{t-2}$	.	0.0003	0.0003	0.0003	0.0003	0.0003	0.0001	0.0002	0.0002	0.0002	0.0001	0.0001	0.0001
	.	(0.56)	(0.54)	(0.53)	(0.55)	(0.56)	(0.28)	(0.30)	(0.30)	(0.32)	(0.28)	(0.27)	(0.22)
$Alpha_{t-3}$	.	0.0017	0.0017	0.0017	0.0017	0.0017	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016
	.	(3.44)	(3.43)	(3.41)	(3.43)	(3.44)	(3.03)	(3.04)	(3.16)	(3.12)	(3.03)	(3.05)	(3.02)
$FFlow_{t-1}$	.	0.0018	0.0018	0.0018	0.0018	0.0018	0.0019	0.0019	0.0019	0.0019	0.0019	0.0016	0.0012
	.	(4.81)	(4.81)	(4.81)	(4.82)	(4.55)	(4.99)	(4.99)	(4.92)	(4.99)	(4.83)	(3.67)	(2.02)
$FFlow_{t-2}$	.	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0002	-0.0002	-0.0002	-0.0002	-0.0002	-0.0002	-0.0002
	.	(-0.00)	(-0.01)	(-0.01)	(-0.00)	(-0.00)	(-0.50)	(-0.52)	(-0.51)	(-0.51)	(-0.49)	(-0.52)	(-0.49)
$FFlow_{t-3}$	.	0.0002	0.0002	0.0002	0.0002	0.0002	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004
	.	(0.48)	(0.47)	(0.47)	(0.48)	(0.48)	(1.23)	(1.22)	(1.23)	(1.22)	(1.23)	(1.23)	(1.20)
Controls	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fund family dummy	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	102646	83573.0	83573.0	83573.0	83573.0	83573.0	73038.0	73038.0	73038.0	73038.0	73038.0	73038.0	73038.0
Adj. RSq.	0.0061	0.0083	0.0083	0.0083	0.0083	0.0083	0.0089	0.0089	0.0090	0.0089	0.0089	0.0089	0.0089

B3: Only co-managers

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Female	-0.0038	-0.0033	-0.0035	-0.0015	-0.0087	-0.0017	-0.0029	-0.0028	-0.0029	-0.0029	-0.0029	-0.0028	-0.0029
	(-3.00)	(-2.54)	(-2.69)	(-0.66)	(-1.30)	(-0.45)	(-1.97)	(-1.97)	(-1.97)	(-1.97)	(-1.98)	(-1.96)	(-1.98)
Early career	.	.	0.0033	0.0037	.	.	.	.	.	.	.	.	.
	.	.	(3.59)	(3.76)	.	.	.	.	.	.	.	.	.
Late career	.	.	-0.0003	-0.0004	.	.	.	.	.	.	.	.	.
	.	.	(-0.15)	(-0.20)	.	.	.	.	.	.	.	.	.
Female×Early career	.	.	.	-0.0032	.	.	.	.	.	.	.	.	.
	.	.	.	(-1.14)	.	.	.	.	.	.	.	.	.
Female×Late career	.	.	.	0.0027	.	.	.	.	.	.	.	.	.
	.	.	.	(0.42)	.	.	.	.	.	.	.	.	.
Female× $Alpha_{t-1}$	.	.	.	.	0.0012	.	.	.	.	.	.	.	.
	.	.	.	.	(0.82)	.	.	.	.	.	.	.	.
Female×$FFlow_{t-1}$	.	.	.	.	.	-0.0004	.	.	.	.	.	.	.
	.	.	.	.	.	(-0.43)	.	.	.	.	.	.	.
Foreign	.	.	.	.	.	.	-0.0032	-0.0063	-0.0032	-0.0033	-0.0063	-0.0032	-0.0032
	.	.	.	.	.	.	(-2.05)	(-0.80)	(-2.05)	(-2.07)	(-1.41)	(-2.02)	(-2.04)
Top school	.	.	.	.	.	.	0.0018	0.0018	0.0035	0.0018	0.0018	0.0054	0.0019
	.	.	.	.	.	.	(1.83)	(1.82)	(0.71)	(1.82)	(1.81)	(1.92)	(1.84)
Adv. degree	.	.	.	.	.	.	0.0002	0.0002	0.0002	-0.0044	0.0002	0.0002	0.0029
	.	.	.	.	.	.	(0.21)	(0.20)	(0.21)	(-0.83)	(0.20)	(0.22)	(0.97)
Foreign × $Alpha_{t-1}$	.	.	.	.	.	.	.	0.0007	.	.	.	.	.
	.	.	.	.	.	.	.	(0.40)	.	.	.	.	.
Top school × $Alpha_{t-1}$	.	.	.	.	.	.	.	.	-0.0004	.	.	.	.
	.	.	.	.	.	.	.	.	(-0.34)	.	.	.	.
Adv. degree × $Alpha_{t-1}$	.	.	.	.	.	.	.	.	.	0.0010	.	.	.
	.	.	.	.	.	.	.	.	.	(0.89)	.	.	.
Foreign × $FFlow_{t-1}$	.	.	.	.	.	.	.	.	.	.	0.0007	.	.
	.	.	.	.	.	.	.	.	.	.	(0.73)	.	.
Top school × $FFlow_{t-1}$	.	.	.	.	.	.	.	.	.	.	.	-0.0008	.
	.	.	.	.	.	.	.	.	.	.	.	(-1.35)	.
Adv. degree × $FFlow_{t-1}$	.	.	.	.	.	.	.	.	.	.	.	.	-0.0006
	.	.	.	.	.	.	.	.	.	.	.	.	(-0.96)
$Alpha_{t-1}$	.	0.0018	0.0017	0.0017	0.0016	0.0018	0.0019	0.0019	0.0021	0.0012	0.0019	0.0019	0.0019
	.	(3.52)	(3.47)	(3.48)	(3.06)	(3.51)	(3.50)	(3.22)	(2.97)	(1.27)	(3.50)	(3.51)	(3.51)
$Alpha_{t-2}$	.	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023	0.0023
	.	(4.50)	(4.45)	(4.45)	(4.49)	(4.50)	(4.15)	(4.15)	(4.15)	(4.15)	(4.16)	(4.14)	(4.15)
$Alpha_{t-3}$	.	0.0004	0.0004	0.0004	0.0004	0.0004	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003	0.0003
	.	(0.78)	(0.72)	(0.72)	(0.77)	(0.78)	(0.51)	(0.51)	(0.51)	(0.51)	(0.51)	(0.50)	(0.51)
$FFlow_{t-1}$	.	0.0022	0.0022	0.0022	0.0022	0.0022	0.0018	0.0018	0.0018	0.0018	0.0018	0.0022	0.0023
	.	(5.89)	(5.89)	(5.89)	(5.90)	(5.81)	(4.51)	(4.52)	(4.52)	(4.50)	(4.20)	(4.56)	(3.72)
$FFlow_{t-2}$	.	0.0012	0.0012	0.0012	0.0012	0.0012	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
	.	(2.97)	(2.94)	(2.94)	(2.97)	(2.97)	(3.23)	(3.22)	(3.23)	(3.23)	(3.22)	(3.24)	(3.23)
$FFlow_{t-3}$	.	-0.0004	-0.0005	-0.0005	-0.0004	-0.0004	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0005	-0.0004
	.	(-1.32)	(-1.48)	(-1.47)	(-1.32)	(-1.32)	(-1.21)	(-1.21)	(-1.21)	(-1.21)	(-1.21)	(-1.21)	(-1.20)
Controls	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fund family dummy	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	552092	470755	470755	470755	470755	470755	395570	395570	395570	395570	395570	395570	395570
Adj. RSq.	0.0019	0.0029	0.0030	0.0030	0.0030	0.0030	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032	0.0032

Table VI
Career outcomes of co-managers with identical track record

This table presents results on subsequent career outcomes of co-managers who started co-managing the same fund in the same month and had no other mutual fund management responsibilities and no prior fund management history. The table explains the probability of a subsequent promotion and demotion, as well as a summary career outcome variable, that are demeaned by the mean realizations for the co-managers in the same cohort. We consider a manager to be promoted if s/he gets an additional fund(s) to co-manage or gets a sole-managed fund(s). We consider a manager to be demoted if s/he loses the fund co-management assignment and gains no other fund management responsibilities. Career outcome is a summary variable that is set to 1 for a promotion, -1 for a demotion, and 0 for no change in the fund management responsibilities by the end of the sample period. A manager is considered to be foreign is s/he addended a foreign, non-Canadian, college or university. Panel A presents the sample characteristics and Panel B presents regression results. The sample period is July 1924 – March 2017. ^{a}, ^{b}, and ^{c} indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Sample characteristics

No. of cohorts	Avg. no. of co-managers	No. of unique managers	Fraction female
139	3.33	375	0.43

	Foreign	MBA	MA	PhD	Other deg.	CFA	Top School
Male	0.25	0.31	0.15	0.06	0.04	0.35	0.45
Female	0.19	0.22	0.11	0.01	0.03	0.29	0.36

Panel B: Explaining career outcomes

	Demotions				Promotions				Summary career outcomes			
Model	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Female	0.092	0.105	0.097	0.101	-0.037	-0.056	-0.051	-0.056	-0.129	-0.162	-0.148	-0.157
	(3.30)	(3.25)	(3.00)	(3.07)	(-1.31)	(-1.62)	(-1.45)	(-1.57)	(-2.65)	(-2.80)	(-2.56)	(-2.67)
Foreign	.	0.025	0.036	0.029	.	-0.024	-0.016	-0.013	.	-0.048	-0.053	-0.042
	.	(0.66)	(0.92)	(0.71)	.	(-0.58)	(-0.39)	(-0.30)	.	(-0.72)	(-0.75)	(-0.58)
MBA	.	.	-0.040	-0.037	.	.	0.039	0.040	.	.	0.079	0.077
	.	.	(-1.16)	(-1.01)	.	.	(1.05)	(1.02)	.	.	(1.29)	(1.18)
MA	.	.	-0.111	-0.107	.	.	0.025	0.026	.	.	0.136	0.134
	.	.	(-2.70)	(-2.57)	.	.	(0.56)	(0.58)	.	.	(1.85)	(1.79)
PhD	.	.	.	0.041	.	.	.	-0.043	.	.	.	-0.084
	.	.	.	(0.60)	.	.	.	(-0.58)	.	.	.	(-0.69)
Other degree	.	.	.	0.085	.	.	.	-0.050	.	.	.	-0.135
	.	.	.	(1.17)	.	.	.	(-0.64)	.	.	.	(-1.04)
Top school	.	.	.	0.002	.	.	.	-0.042	.	.	.	-0.044
	.	.	.	(0.07)	.	.	.	(-1.16)	.	.	.	(-0.74)
CFA	.	.	.	-0.003	.	.	.	0.038	.	.	.	0.042
	.	.	.	(-0.10)	.	.	.	(1.10)	.	.	.	(0.72)
Obs.	375	250	250	250	375	250	250	250	375	250	250	250
Adj. RSq.	0.028	0.042	0.070	0.077	0.005	0.011	0.016	0.029	0.018	0.032	0.048	0.058

Table VII
Hazard rates for promotion and time to promotion for co-managers with identical track record

This table presents Cox proportional hazard rates for promotion for co-managers who started co-managing the same fund in the same month and had not other mutual fund management responsibilities and no prior fund management history. We consider a manager to be promoted if s/he gets an additional fund(s) to co-manage or gets a sole-managed fund(s). A manager is considered to be foreign is s/he addended a foreign, non-Canadian, college or university. Panel A presents the sample characteristics and Panel B presents regression results. Standard errors (in parentheses) and hazard ratios (in italics) are reported below the coefficient estimates . The sample period is July 1924 – March 2017. ^{a}, ^{b}, and ^{c} indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Sample characteristics

No. of cohorts	No. of mgrs	Avg. no. of co-mgrs	Fraction of Female	Foreign	MBA	MA	PhD	Other deg.	CFA	Top Sch.
439	1,083	2.87	0.17	0.17	0.39	0.12	0.04	0.04	0.39	0.43

Panel B: Hazard rates of promotion

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Female	-0.010	.		.	0.063	-0.265	-0.264	-0.266	-0.289
	(0.123)	.	.	.	(0.142)	(0.240)	(0.240)	(0.244)	(0.245)
	0.990	.	.	.	*1.066*	*0.767*	*0.768*	*0.767*	*0.749*
Foreign	.	-0.001	.	.	0.021	0.258	0.311	0.229	0.198
	.	(0.122)	.	.	(0.123)	(0.273)	(0.266)	(0.272)	(0.279)
	.	*0.999*	.	.	*1.021*	*1.295*	*1.365*	*1.258*	*1.220*
Adv. deg.	.	.	0.148	.	0.118	0.449^{b}	.		.
	.	.	(0.106)	.	(0.109)	(0.180)	.	.	.
	.	.	*1.160*	.	*1.126*	*1.566*	.	.	.
MBA	.		.		.	.	0.580^{a}	0.605^{a}	0.648^{a}
	.	.	.	.	.	.	(0.166)	(0.167)	(0.176)
	.	.	.	.	.	.	*1.786*	*1.831*	*1.912*
MA	.		.		.	.	0.090	0.114	0.112
	.	.	.	.	.	.	(0.228)	(0.230)	(0.234)
	.	.	.	.	.	.	*1.094*	*1.121*	*1.118*
PhD	.		.		.		.	0.276	0.306
	.	.	.	.	.	.	.	(0.348)	(0.350)
	.	.	.	.	.	.	.	*1.317*	*1.359*
Other deg.	.		.		.		.	0.405	0.448
	.	.	.	.	.	.	.	(0.385)	(0.388)
	.	.	.	.	.	.	.	*1.499*	*1.566*
Top sch.	.		.	0.183^{c}	0.162	-0.124	.	.	-0.236
	.	.	.	(0.098)	(0.101)	(0.182)	.	.	(0.185)
	.	.	.	*1.201*	*1.176*	*0.883*	.	.	*0.790*
CFA	.		.		.	0.145	.	.	0.137
	.	.	.	.	.	(0.182)	.	.	(0.185)
	.	.	.	.	.	*1.155*	.	.	*1.147*
Obs.	1083	807	807	807	807	807	807	807	807

Appendix

A1. Variable definitions

This appendix offers a detailed description of the variables used throughout the analysis in the paper. All variables are computed as of the end of the prior month.

Foreign. A dummy variable indicating whether a manager has attended at least one foreign college of university. If school information is missing, the variable is set to missing. Canadian schools are not considered to be foreign.

Foreign (incl. guess). A dummy variable indicating whether a manager has attended at least one foreign college of university. Canadian schools are not considered to be foreign. If school information is missing, the variable is set to one if a manager has non-Anglo-Saxon sounding first and last names.

Top school. A dummy variable indicating whether a manager attended at least one top-10 college or university, a top-ten MBA program, or an Ivy-League university. The variable is set to missing for observations with missing school information.

Adv. Deg. A dummy variable indicating whether a manager holds an MA, MBA, PhD, or Other Degree. The variable is set to missing for observations with missing school information.

Time in industry. The number of days since the manager first started managing funds.

Time at the fund. The number of days since the manager first started managing the fund.

Alpha. A 1 to 10 in the rank of average monthly CAPM alphas earned by the manager on the managed funds. A fund's monthly CAPM alpha rank is computed within its investment category. If a manager manages more than one fund, the individual funds' monthly alpha ranks are weighted by $\frac{1}{\textit{num. co-managers}}$. Alpha_{t-1} is computed as the average rank over the trailing window [-12,-1]; Alpha_{t-1} is computed over the trailing window [-24,-13]; and Alpha_{t-3} is computed over the trailing window [-36,-14].

FFlow. A 1 to 10 rank of average monthly fund flow for the managed funds. If a manager manages more than one fund, the individual funds' monthly fund flow ranks are weighted by $\frac{1}{\textit{num. co-managers}}$. FFlow_{t-1} is computed as the average rank over the trailing window [-12,-1]; FFlow_{t-1} is computed over the trailing window [-24,-13]; and FFlow_{t-3} is computed over the trailing window [-36,-14].

Low Alpha dummy. A dummy variable indicating whether Alpha is below 2.

Low FFlow dummy. A dummy variable indicating whether FFlow is below 2.

Stdev. Standard deviation of the managers' alpha rank computed over the trailing window over which the manager's performance is measured.

Manager TNA. The natural logarithm of the dollar value of total assets managed by the manager. For co-managed funds, the fund's TNA is divided by the number of managers.

Num. funds managed. The total number of funds that a manager sole-manages or co-manages.

IOC Trend. This variable is computed for each investment category and equals the growth in the fund flows going to that category over the trailing 12 months.

Early career. A dummy variable set to one if a manager has less than 10 years of industry experience and to zero otherwise.

Late career. A dummy variable set to one if a manager has more than 20 years of industry experience and to zero otherwise.

Table AI
Statistics on managers by investment objective categories

This table presents statistics on mutual fund managers by the investment objective categories of the funds they manage, as defined by Morningstar. The sample includes only category-month observations containing at least 10 unique funds in a given month. The sample period is January 1992 – December 2016.

IOC	Female	Top school	Foreign	. MBA	MA	PhD	Other degree	CFA	. Age	Avg. no. of funds
Aggressive Allocation	0.12	0.66	0.07	0.33	0.07	0.03	0.01	0.55	46.2	39
Allocation - 15% - 30% Equity	0.12	0.39	0.10	0.34	0.16	0.04	0.04	0.36	49.0	94
Allocation - 30% - 50% Equity	0.09	0.36	0.06	0.42	0.14	0.06	0.02	0.52	47.0	333
Allocation - 50% - 70% Equity	0.11	0.29	0.04	0.46	0.14	0.04	0.02	0.51	46.7	649
Allocation - 70% - 85% Equity	0.09	0.38	0.05	0.39	0.17	0.05	0.02	0.46	47.9	240
Allocation - 85%+ Equity	0.10	0.56	0.07	0.35	0.14	0.07	0.07	0.46	46.3	79
Bank Loan	0.12	0.44	0.01	0.58	0.02	0.01	0.01	0.40	50.2	83
Bear Market	0.13	0.50	0.06	0.28	0.12	0.00	0.05	0.46	48.5	19
China Region	0.21	0.42	0.40	0.34	0.17	0.02	0.05	0.27	44.8	39
Commodities Broad Basket	0.06	0.50	0.05	0.37	0.11	0.06	0.01	0.27	44.1	75
Communications	0.07	0.21	0.10	0.40	0.16	0.00	0.01	0.54	43.8	17
Conservative Allocation	0.18	0.41	0.05	0.31	0.13	0.02	0.02	0.45	52.3	76
Consumer Cyclical	0.09	0.33	0.07	0.33	0.17	0.02	0.00	0.42	37.0	15
Convertibles	0.11	0.16	0.05	0.58	0.13	0.01	0.02	0.49	46.4	41
Corporate Bond	0.06	0.31	0.03	0.51	0.17	0.03	0.02	0.53	47.4	88
Diversified Emerging Mk	0.18	1.00	0.36	0.45	0.09	0.00	0.09	0.18	54.4	11
Diversified Emerging Mkts	0.14	0.38	0.30	0.35	0.22	0.07	0.04	0.38	45.3	414
Diversified Pacific/Asia	0.15	0.25	0.42	0.33	0.18	0.01	0.01	0.23	43.7	20
Emerging Markets - Local Currency Bond	0.09	0.65	0.14	0.23	0.14	0.13	0.06	0.37	42.5	26
Emerging Markets Bond	0.12	0.47	0.21	0.20	0.19	0.05	0.03	0.34	47.8	180
Energy Limited Partnership	0.01	0.34	0.04	0.37	0.13	0.04	0.08	0.27	49.5	42
Equity Energy	0.03	0.29	0.09	0.38	0.19	0.02	0.08	0.41	44.0	66
Equity Precious Metals	0.05	0.18	0.22	0.29	0.17	0.01	0.08	0.40	48.4	29
Europe Stock	0.14	0.33	0.33	0.24	0.21	0.03	0.02	0.27	43.4	76
Financial	0.14	0.25	0.08	0.45	0.16	0.02	0.01	0.33	44.6	54
Foreign Large Blend	0.14	0.38	0.28	0.39	0.21	0.06	0.03	0.43	47.0	554
Foreign Large Growth	0.09	0.33	0.30	0.41	0.27	0.03	0.04	0.36	46.3	213
Foreign Large Value	0.16	0.47	0.21	0.47	0.21	0.08	0.06	0.51	47.3	242
Foreign Small/Mid Blend	0.16	0.49	0.22	0.39	0.21	0.07	0.03	0.32	45.0	55
Foreign Small/Mid Growth	0.10	0.49	0.27	0.41	0.26	0.03	0.02	0.35	42.8	57
Foreign Small/Mid Value	0.12	0.34	0.21	0.46	0.21	0.05	0.04	0.39	45.3	49
Global Real Estate	0.09	0.38	0.21	0.47	0.12	0.03	0.03	0.36	47.1	161
Health	0.17	0.42	0.11	0.41	0.15	0.06	0.08	0.52	43.6	79
High Yield Bond	0.09	0.29	0.02	0.48	0.08	0.02	0.03	0.50	46.7	350
High Yield Muni	0.18	0.20	0.00	0.47	0.13	0.01	0.04	0.45	46.6	79
India Equity	0.04	0.47	0.63	0.49	0.23	0.01	0.14	0.38	40.2	19
Industrials	0.14	0.29	0.09	0.37	0.23	0.02	0.00	0.31	35.7	12
Inflation-Protected Bond	0.07	0.43	0.03	0.44	0.11	0.08	0.01	0.41	45.9	99
Infrastructure	0.07	0.35	0.12	0.37	0.19	0.02	0.14	0.40	53.4	35
Intermediate Government	0.11	0.24	0.05	0.45	0.15	0.03	0.01	0.39	44.3	186
Intermediate-Term Bond	0.09	0.25	0.03	0.48	0.11	0.02	0.01	0.47	46.5	768
Japan Stock	0.10	0.30	0.34	0.30	0.25	0.05	0.05	0.18	46.9	35
Large Blend	0.10	0.30	0.06	0.48	0.15	0.05	0.03	0.50	47.6	971
Large Growth	0.09	0.28	0.05	0.48	0.12	0.02	0.03	0.50	47.7	1101
Large Value	0.11	0.30	0.05	0.56	0.13	0.04	0.02	0.54	47.7	818

IOC	Female	Top school	Foreign	MBA	MA	PhD	Other degree	CFA	Age	Avg. no. of funds
Latin America Stock	0.22	0.35	0.34	0.44	0.20	0.04	0.00	0.39	44.6	29
Long Government	0.05	0.31	0.02	0.48	0.21	0.05	0.02	0.31	46.9	15
Long-Short Credit	0.09	0.40	0.04	0.36	0.12	0.04	0.01	0.12	44.6	37
Long-Term Bond	0.06	0.15	0.06	0.47	0.10	0.01	0.01	0.42	48.1	42
Long/Short Equity	0.04	0.29	0.06	0.38	0.13	0.04	0.02	0.46	47.5	232
Managed Futures	0.07	0.35	0.10	0.26	0.20	0.15	0.01	0.18	47.5	149
Market Neutral	0.06	0.33	0.06	0.34	0.17	0.10	0.02	0.36	46.9	103
Mid-Cap Blend	0.09	0.32	0.07	0.48	0.14	0.03	0.05	0.51	48.3	241
Mid-Cap Growth	0.10	0.29	0.04	0.50	0.12	0.02	0.03	0.54	46.6	484
Mid-Cap Value	0.10	0.31	0.04	0.55	0.13	0.03	0.03	0.48	49.1	273
Miscellaneous Region	0.07	0.31	0.23	0.37	0.23	0.04	0.07	0.19	47.6	21
Moderate Allocation	0.06	0.55	0.03	0.38	0.10	0.01	0.03	0.37	48.4	85
Multialternative	0.06	0.43	0.09	0.34	0.14	0.09	0.04	0.34	47.4	423
Multicurrency	0.08	0.64	0.18	0.25	0.30	0.18	0.04	0.19	43.5	27
Multisector Bond	0.07	0.24	0.07	0.46	0.11	0.04	0.02	0.42	47.1	181
Muni California Intermediate	0.17	0.23	0.00	0.37	0.04	0.01	0.00	0.29	45.0	57
Muni California Long	0.12	0.18	0.01	0.43	0.14	0.02	0.03	0.39	45.0	69
Muni Massachusetts	0.20	0.12	0.00	0.43	0.15	0.01	0.03	0.41	46.3	38
Muni Minnesota	0.21	0.11	0.00	0.46	0.11	0.00	0.02	0.43	46.0	36
Muni National Interm	0.19	0.15	0.01	0.37	0.07	0.01	0.01	0.39	46.0	175
Muni National Long	0.18	0.13	0.01	0.37	0.12	0.00	0.02	0.39	45.6	127
Muni National Short	0.20	0.16	0.01	0.35	0.09	0.01	0.01	0.31	45.3	105
Muni New Jersey	0.17	0.15	0.00	0.44	0.16	0.01	0.02	0.35	44.6	40
Muni New York Intermediate	0.21	0.20	0.01	0.34	0.11	0.00	0.02	0.32	47.6	38
Muni New York Long	0.12	0.09	0.01	0.38	0.16	0.02	0.04	0.41	45.3	57
Muni Ohio	0.15	0.14	0.00	0.40	0.14	0.00	0.02	0.46	45.2	37
Muni Pennsylvania	0.15	0.16	0.00	0.40	0.16	0.00	0.02	0.37	44.2	47
Muni Single State Interm	0.17	0.11	0.01	0.29	0.12	0.00	0.01	0.34	44.0	177
Muni Single State Long	0.18	0.09	0.01	0.37	0.16	0.02	0.03	0.35	42.3	206
Muni Single State Short	0.08	0.28	0.00	0.50	0.16	0.00	0.04	0.25	44.6	45
Natural Resources	0.08	0.31	0.13	0.34	0.13	0.03	0.03	0.44	42.7	60
Nontraditional Bond	0.05	0.32	0.06	0.41	0.09	0.03	0.03	0.42	48.2	195
Option Writing	0.01	0.31	0.07	0.38	0.10	0.07	0.04	0.39	49.2	65
Pacific/Asia ex-Japan Stk	0.18	0.29	0.45	0.25	0.21	0.02	0.05	0.24	44.3	54
Preferred Stock	0.07	0.06	0.11	0.42	0.17	0.00	0.00	0.30	45.4	20
Real Estate	0.06	0.41	0.02	0.50	0.14	0.02	0.01	0.41	46.3	124
Retirement Income	0.12	0.42	0.05	0.34	0.12	0.03	0.01	0.49	45.8	92
Short Government	0.13	0.23	0.01	0.45	0.10	0.02	0.00	0.40	43.7	133
Short-Term Bond	0.10	0.24	0.02	0.48	0.09	0.02	0.02	0.47	45.6	257
Small Blend	0.13	0.30	0.05	0.49	0.12	0.03	0.03	0.54	47.9	486
Small Growth	0.11	0.32	0.04	0.51	0.10	0.02	0.03	0.56	46.9	600
Small Value	0.08	0.24	0.06	0.53	0.17	0.06	0.03	0.53	48.0	311
Tactical Allocation	0.07	0.26	0.07	0.38	0.15	0.09	0.02	0.37	47.9	166
Target-Date 2000-2010	0.08	0.60	0.08	0.34	0.13	0.06	0.05	0.45	45.9	90
Target-Date 2015	0.11	0.58	0.10	0.31	0.14	0.05	0.06	0.50	47.7	94
Target-Date 2020	0.10	0.54	0.07	0.35	0.15	0.06	0.02	0.48	47.0	111
Target-Date 2021-2025	0.21	0.69	0.00	0.00	0.08	0.10	0.00	0.10	47.2	11
Target-Date 2025	0.10	0.58	0.10	0.31	0.14	0.05	0.05	0.49	47.5	99
Target-Date 2030	0.10	0.53	0.07	0.34	0.15	0.06	0.02	0.48	47.0	112
Target-Date 2031-2035	0.21	0.69	0.00	0.00	0.08	0.10	0.00	0.10	47.2	11
Target-Date 2035	0.11	0.57	0.11	0.30	0.14	0.05	0.05	0.50	47.3	98
Target-Date 2040	0.10	0.54	0.07	0.35	0.15	0.06	0.02	0.47	47.0	113
Target-Date 2041-2045	0.16	0.00	0.00	0.17	0.00	0.00	0.00	0.34	45.6	12

IOC	Female	Top school	Foreign	. MBA	MA	PhD	Other degree	CFA	. Age	Avg. no. of funds
Target-Date 2045	0.11	0.58	0.10	0.30	0.15	0.04	0.06	0.48	47.5	97
Target-Date 2050	0.10	0.58	0.06	0.35	0.16	0.05	0.03	0.50	47.9	110
Target-Date 2051+	0.11	0.45	0.04	0.37	0.09	0.04	0.00	0.49	45.2	26
Target-Date 2055	0.10	0.71	0.13	0.31	0.16	0.05	0.10	0.51	49.5	85
Target-Date 2060+	0.09	0.65	0.04	0.42	0.15	0.02	0.01	0.55	50.5	69
Technology	0.09	0.31	0.05	0.40	0.19	0.02	0.02	0.39	43.6	162
Trading-Inverse Debt	0.03	0.66	0.02	0.36	0.02	0.00	0.00	0.27	30.6	10
Trading-Leveraged Equity	0.22	0.45	0.11	0.00	0.11	0.00	0.00	0.20	42.7	50
Ultrashort Bond	0.14	0.20	0.02	0.43	0.14	0.02	0.01	0.36	44.1	113
Utilities	0.19	0.32	0.04	0.53	0.09	0.05	0.01	0.55	46.0	30
Volatility	0.08	0.60	0.08	0.50	0.25	0.00	0.00	0.50	47.8	12
World Allocation	0.09	0.39	0.12	0.38	0.18	0.09	0.02	0.43	48.1	307
World Bond	0.11	0.35	0.22	0.33	0.22	0.09	0.02	0.32	44.9	201
World Stock	0.12	0.40	0.19	0.41	0.19	0.05	0.06	0.43	46.4	618

Table AII
Descriptive statistics on mutual fund managers of mainstream active domestic equity funds

This table presents descriptive statistics on mutual fund managers, corresponding to Table II in the main text. However, the sample only includes current managers of the mainstream active domestic equity funds.

Panel A: Statistics on promotions and demotions (monthly probabilities)

Promotion - gain additional sole-managed fund(s)	0.00458
Promotion - gain additional co-managed fund(s)	0.01955
Total probability of promotion	0.02413
Demotion - lose sole-managed fund(s)	0.00594
Demotion - lose co-managed fund(s)	0.01762
Total probability of demotion	0.02356

Panel C: Statistics on employment gaps and firings (monthly probabilities)

Gap in employment over 6 months	0.00146
Fired (leave the industry <55 y.o. or <25 yrs experience)	0.00645

Panel B: Male vs. Female managers

			Difference	
	Male	Female	Female - Male	*t*-statistic
Fraction of manager-months	0.903	0.097		
Number of unique managers	5,870	700		
Years in industry	10.101	9.137	-0.964	(-34.73)
Age	48.787	46.287	-2.500	(-37.99)
Age first started	32.389	32.366	-0.023	(-0.05)
Under 35 y. o.	0.056	0.056	-0.000	(-0.18)
Over 55 y. o.	0.250	0.143	-0.106	(-37.80)
Foreign	0.042	0.054	0.012	(1.34)
MBA	0.458	0.391	-0.066	(-3.39)
MA	0.118	0.130	0.012	(0.92)
PhD	0.028	0.024	-0.003	(-0.53)
Other degree	0.032	0.016	-0.016	(-3.08)
Top school	0.408	0.406	-0.002	(-0.10)
CFA	0.472	0.433	-0.039	(-1.96)
No. of sole-managed funds	0.445	0.403	-0.043	(-9.56)
No. of co-managed funds	2.111	2.221	0.109	(8.55)
Managed TNA (mil)	1203.778	969.279	-234.50	(-14.87)
No. of managers in fund family	40.449	47.740	7.291	(33.95)
Alpha rank	4.547	4.542	-0.006	(-0.33)
Fund flow rank	4.395	4.337	-0.059	(-1.91)
Prob. employment gap over 6 mo.	0.001	0.001	-0.000	(-0.95)
Length of empl. gap (yrs)	2.241	2.141	-0.100	(-0.50)
Prob. fired	0.006	0.009	0.003	(5.50)
Prob. demoted	0.022	0.023	0.001	(1.08)
Prob. promoted	0.020	0.022	0.001	(1.85)

Table AIII
Explaining raw style-adjusted returns

This table presents the results of OLS regressions explaining raw style-adjusted returns. The sample and variable definitions correspond to Table III in the main text.

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Female	-0.0002	-0.0001	-0.0002	-0.0001	-0.0001	-0.0002	-0.0002	-0.0001	-0.0002	-0.0002
	(-1.29)	(-1.21)	(-1.73)	(-0.81)	(-1.32)	(-1.29)	(-1.28)	(-0.94)	(-1.32)	(-1.28)
Time in industry	.	.	.	.	.	.	.	.	.	-0.0000
	.	.	.	.	.	.	.	.	.	(-0.45)
Time in industry^2	.	.	.	.	.	.	.	.	.	-0.0000
	.	.	.	.	.	.	.	.	.	(-0.16)
Foreign	.	.	.	.	.	.	0.0000	0.0001	0.0000	-0.0001
	.	.	.	.	.	.	(0.20)	(0.57)	(0.19)	(-0.39)
Foreign×female	.	.	.	.	.	.	.	-0.0008	.	.
	.	.	.	.	.	.	.	(-1.48)	.	.
MBA	.	.	.	.	.	.	0.0000	0.0000	0.0000	0.0001
	.	.	.	.	.	.	(0.30)	(0.32)	(0.30)	(0.58)
MA	.	.	.	.	.	.	-0.0000	-0.0000	-0.0000	-0.0000
	.	.	.	.	.	.	(-0.36)	(-0.40)	(-0.34)	(-0.22)
PhD	.	.	.	.	.	.	0.0001	0.0001	0.0001	0.0001
	.	.	.	.	.	.	(0.33)	(0.35)	(0.30)	(0.43)
Other degree	.	.	.	.	.	.	.	.	.	0.0007
	.	.	.	.	.	.	.	.	.	(2.60)
CFA	.	.	.	.	.	.	.	.	.	0.0001
	.	.	.	.	.	.	.	.	.	(0.82)
Top school	.	.	.	.	.	.	.	.	.	-0.0001
	.	.	.	.	.	.	.	.	.	(-0.77)
Time at the fund	.	.	.	.	.	.	.	.	-0.0000	.
	.	.	.	.	.	.	.	.	(-1.06)	.
Obs.	257370	262724	258901	257443	257443	257370	220456	220456	220456	220456
	.	.	.	.	.	.	.	.	.	.
Adj. RSq.	0.0161	0.0152	0.0098	0.0092	0.0088	0.0160	0.0175	0.0175	0.0175	0.0175

Table AIV
Explaining style-adjusted fund flows and CAPM alpha for active domestic mainstream equity funds

This table presents the results of OLS regressions explaining fund style-adjusted fund flows (Panel A) and style-adjusted CAPM alphas (Panel B) for active domestic mainstream equity funds. The variable definitions correspond to Table III in the main text.

Panel A: Style-adjusted fund flows

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Female	0.0001	0.0004	-0.0003	0.0002	0.0000	0.0001	0.0007	0.0006	0.0006	0.0006
	(0.20)	(0.54)	(-0.37)	(0.34)	(0.07)	(0.21)	(0.90)	(0.82)	(0.76)	(0.76)
Time in industry	.	.	.	.	.	.	.	.	.	-0.0000
	.	.	.	.	.	.	.	.	.	(-3.88)
Time in industry^2	.	.	.	.	.	.	.	.	.	0.0000
	.	.	.	.	.	.	.	.	.	(3.37)
Foreign	.	.	.	.	.	.	0.0024	0.0023	0.0024	0.0023
	.	.	.	.	.	.	(2.20)	(2.06)	(2.13)	(1.94)
Foreign×female	.	.	.	.	.	.	.	0.0028	.	.
	.	.	.	.	.	.	.	(0.49)	.	.
MBA	.	.	.	.	.	.	-0.0000	-0.0000	0.0001	0.0000
	.	.	.	.	.	.	(-0.03)	(-0.03)	(0.18)	(0.08)
MA	.	.	.	.	.	.	0.0001	0.0001	0.0001	0.0003
	.	.	.	.	.	.	(0.09)	(0.09)	(0.17)	(0.39)
PhD	.	.	.	.	.	.	0.0028	0.0028	0.0028	0.0030
	.	.	.	.	.	.	(2.55)	(2.55)	(2.55)	(2.66)
Other degree	.	.	.	.	.	.	.	.	.	-0.0009
	.	.	.	.	.	.	.	.	.	(-0.70)
CFA	.	.	.	.	.	.	.	.	.	-0.0004
	.	.	.	.	.	.	.	.	.	(-0.79)
Top school	.	.	.	.	.	.	.	.	.	0.0003
	.	.	.	.	.	.	.	.	.	(0.51)
Time at the fund	.	.	.	.	.	.	.	.	-0.0000	.
	.	.	.	.	.	.	.	.	(-3.08)	.
Fund flow controls	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Fund return controls	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
Fund controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Month dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
IOC dummy	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Fund family dummy	Y	Y	Y	N	N	Y	Y	Y	Y	Y
Fund family controls	N	N	N	Y	Y	N	N	N	N	N
Obs.	114781	117413	115678	114781	114781	114781	96509.0	96509.0	96509.0	96509.0
Adj. RSq.	0.1284	0.0747	0.1106	0.1215	0.1195	0.1282	0.1293	0.1293	0.1294	0.1294

Panel B: Style-adjusted CAPM alphas

Model	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Female	-0.0001	-0.0001	-0.0001	0.0001	0.0000	-0.0001	-0.0002	-0.0002	-0.0002	-0.0002
	(-0.35)	(-0.35)	(-0.24)	(0.30)	(0.23)	(-0.35)	(-0.60)	(-0.62)	(-0.66)	(-0.79)
Time in industry	.	.	.	.	.	.	.	.	.	-0.0000
	.	.	.	.	.	.	.	.	.	(-1.55)
Time in industry^2	.	.	.	.	.	.	.	.	.	0.0000
	.	.	.	.	.	.	.	.	.	(1.06)
Foreign	.	.	.	.	.	.	0.0003	0.0003	0.0003	0.0002
	.	.	.	.	.	.	(0.87)	(0.82)	(0.84)	(0.49)
Foreign×female	.	.	.	.	.	.	.	0.0004	.	.
	.	.	.	.	.	.	.	(0.20)	.	.
MBA	.	.	.	.	.	.	0.0000	0.0000	0.0001	0.0001
	.	.	.	.	.	.	(0.22)	(0.21)	(0.31)	(0.78)
MA	.	.	.	.	.	.	-0.0001	-0.0001	-0.0001	-0.0001
	.	.	.	.	.	.	(-0.59)	(-0.59)	(-0.56)	(-0.35)
PhD	.	.	.	.	.	.	-0.0002	-0.0002	-0.0002	-0.0001
	.	.	.	.	.	.	(-0.55)	(-0.55)	(-0.55)	(-0.27)
Other degree	.	.	.	.	.	.	.	.	.	0.0002
	.	.	.	.	.	.	.	.	.	(0.51)
CFA	.	.	.	.	.	.	.	.	.	0.0000
	.	.	.	.	.	.	.	.	.	(0.18)
Top school	.	.	.	.	.	.	.	.	.	-0.0003
	.	.	.	.	.	.	.	.	.	(-1.44)
Time at the fund	.	.	.	.	.	.	.	.	-0.0000	.
	.	.	.	.	.	.	.	.	(-1.41)	.
Fund flow controls	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Fund return controls	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
Fund controls	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Month dummy	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
IOC dummy	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Fund family dummy	Y	Y	Y	N	N	Y	Y	Y	Y	Y
Fund family controls	N	N	N	Y	Y	N	N	N	N	N
Obs.	114855	117799	115757	114855	114855	114855	96576.0	96576.0	96576.0	96576.0
Adj. RSq.	0.0185	0.0180	0.0128	0.0106	0.0103	0.0183	0.0198	0.0198	0.0198	0.0199

Table AV

Explaining manager firings and career changes: Sample starts in 2006

This table presents the results of linear probability regressions explaining firings, and OLS regressions explaining managers' fund assignment changes. The sample starts in January 2006. Panels A and B correspond to Panels A1 of Tables IV and Table V, respectively.

Panel A: Firings

	Years of fund management experience									
	All observations				$\geq$ 1 year		$\geq$ 5 years		$\geq$ 10 years	
Female	0.0028	0.0028	0.0024	0.0024	0.0028	0.0022	0.0029	0.0023	0.0028	0.0025
	(8.40)	(8.59)	(7.07)	(7.07)	(8.21)	(6.58)	(7.42)	(5.85)	(5.81)	(4.97)
Foreign (incl.guess)	.	.	.	-0.0000	.	-0.0001	.	0.0005	.	0.0006
	.	.	.	(-0.15)	.	(-0.31)	.	(1.30)	.	(1.11)
$Alpha_{t-1}$	.	.	.	.	.	-0.0010	.	-0.0010	.	-0.0008
	.	.	.	.	.	(-7.94)	.	(-6.66)	.	(-4.38)
$Alpha_{t-2}$	.	.	.	.	.	.	.	-0.0004	.	-0.0006
	.	.	.	.	.	.	.	(-2.62)	.	(-2.95)
$Alpha_{t-3}$	.	.	.	.	.	.	.	-0.0001	.	-0.0001
	.	.	.	.	.	.	.	(-0.87)	.	(-0.27)
$FFlow_{t-1}$	.	.	.	.	.	-0.0010	.	-0.0007	.	-0.0008
	.	.	.	.	.	(-14.38)	.	(-6.19)	.	(-5.49)
$FFlow_{t-2}$	.	.	.	.	.	.	.	-0.0001	.	0.0001
	.	.	.	.	.	.	.	(-0.86)	.	(0.34)
$FFlow_{t-3}$	.	.	.	.	.	.	.	-0.0000	.	-0.0001
	.	.	.	.	.	.	.	(-0.35)	.	(-0.81)
Stdev	.	.	.	.	.	-0.0415	.	-0.0241	.	0.0101
	.	.	.	.	.	(-2.51)	.	(-1.03)	.	(0.35)
Manager TNA	.	.	-0.0025	-0.0025	.	-0.0024	.	-0.0025	.	-0.0022
	.	.	(-33.56)	(-33.52)	.	(-31.82)	.	(-25.51)	.	(-17.88)
Num. funds managed	.	.	-0.0001	-0.0001	.	-0.0001	.	-0.0001	.	-0.0001
	.	.	(-3.71)	(-3.72)	.	(-4.46)	.	(-3.64)	.	(-2.28)
Trend	.	.	0.0004	0.0004	.	0.0028	.	0.0035	.	0.0016
	.	.	(0.41)	(0.42)	.	(2.66)	.	(2.57)	.	(0.89)
Exp. ratio	.	.	-0.0001	-0.0001	.	-0.0001	.	-0.0002	.	-0.0002
	.	.	(-1.39)	(-1.39)	.	(-2.41)	.	(-3.15)	.	(-1.95)
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fund family dummy	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	534716	534716	527693	527693	531393	524281	363645	322194	211583	187996
Adj. RSq.	0.0025	0.0003	0.0054	0.0054	0.0025	0.0059	0.0027	0.0067	0.0034	0.0069

Panel B: Career advancement

	Years of fund management experience									
	All observations				$\geq$ 1 year		$\geq$ 5 years		$\geq$ 10 years	
Female	-0.0044	-0.0041	-0.0053	-0.0054	-0.0042	-0.0049	-0.0028	-0.0027	-0.0017	-0.0017
	(-2.25)	(-2.14)	(-2.69)	(-2.71)	(-2.14)	(-2.45)	(-1.86)	(-1.83)	(-0.84)	(-0.89)
Foreign (incl.guess)	.	.	.	0.0009	.	0.0010	.	-0.0008	.	-0.0026
	.	.	.	(0.47)	.	(0.52)	.	(-0.52)	.	(-1.24)
$Alpha_{t-1}$	.	.	.	.	.	0.0016	.	0.0023	.	0.0033
	.	.	.	.	.	(2.23)	.	(4.12)	.	(4.78)
$Alpha_{t-2}$	.	.	.	.	.	.	.	0.0026	.	0.0018
	.	.	.	.	.	.	.	(4.48)	.	(2.50)
$Alpha_{t-3}$	.	.	.	.	.	.	.	0.0005	.	-0.0002
	.	.	.	.	.	.	.	(0.91)	.	(-0.22)
$FFlow_{t-1}$	.	.	.	.	.	0.0027	.	0.0015	.	0.0021
	.	.	.	.	.	(6.36)	.	(3.77)	.	(4.08)
$FFlow_{t-2}$	.	.	.	.	.	.	.	0.0014	.	0.0012
	.	.	.	.	.	.	.	(2.94)	.	(2.07)
$FFlow_{t-3}$	.	.	.	.	.	.	.	-0.0006	.	-0.0000
	.	.	.	.	.	.	.	(-1.62)	.	(-0.06)
Stdev	.	.	.	.	.	0.0882	.	0.2626	.	0.2684
	.	.	.	.	.	(0.90)	.	(3.02)	.	(2.51)
Manager TNA	.	.	-0.0021	-0.0021	.	-0.0022	.	-0.0011	.	-0.0007
	.	.	(-4.83)	(-4.80)	.	(-5.07)	.	(-3.01)	.	(-1.49)
Num. funds managed	.	.	-0.0007	-0.0007	.	-0.0007	.	-0.0004	.	-0.0005
	.	.	(-4.87)	(-4.85)	.	(-4.33)	.	(-3.84)	.	(-3.94)
Trend	.	.	0.0116	0.0115	.	0.0053	.	-0.0009	.	0.0001
	.	.	(1.88)	(1.87)	.	(0.85)	.	(-0.18)	.	(0.01)
Exp. ratio	.	.	-0.0013	-0.0013	.	-0.0012	.	-0.0005	.	-0.0005
	.	.	(-3.86)	(-3.86)	.	(-3.47)	.	(-1.79)	.	(-1.36)
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fund family dummy	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	534716	534716	527693	527693	531393	524281	363645	322194	211583	187996
Adj. RSq.	0.0018	0.0027	0.0037	0.0020	0.0018	0.0021	0.0037	0.0049	0.0045	0.0061

Table AVI

Explaining manager firings and career outcomes: Only current managers of the mainstream active domestic equity funds

This table presents the results of linear probability regressions explaining manager firings, demotions and promotions. The sample of managers includes only managers of the mainstream active domestic equity funds. Panels A and B correspond to Panels A1 of Tables IV and Table V, respectively.

Panel A: Firings

	Years of fund management experience									
	All observations				$\geq$ 1 year		$\geq$ 5 years		$\geq$ 10 years	
Female	0.0030	0.0033	0.0026	0.0026	0.0030	0.0024	0.0031	0.0026	0.0025	0.0024
	(7.52)	(8.28)	(6.36)	(6.35)	(7.36)	(5.99)	(6.18)	(4.82)	(3.62)	(3.28)
Foreign (incl.guess)	.	.	.	0.0008	.	0.0009	.	0.0005	.	0.0000
	.	.	.	(1.40)	.	(1.58)	.	(0.64)	.	(0.01)
$Alpha_{t-1}$	.	.	.	.	.	-0.0011	.	-0.0013	.	-0.0012
	.	.	.	.	.	(-7.76)	.	(-6.70)	.	(-4.75)
$Alpha_{t-2}$	.	.	.	.	.	.	.	-0.0007	.	-0.0011
	.	.	.	.	.	.	.	(-3.72)	.	(-4.33)
$Alpha_{t-3}$	.	.	.	.	.	.	.	-0.0001	.	0.0000
	.	.	.	.	.	.	.	(-0.64)	.	(0.18)
$FFlow_{t-1}$	.	.	.	.	.	-0.0010	.	-0.0007	.	-0.0007
	.	.	.	.	.	(-13.08)	.	(-5.23)	.	(-3.50)
$FFlow_{t-2}$	.	.	.	.	.	.	.	-0.0003	.	-0.0001
	.	.	.	.	.	.	.	(-1.62)	.	(-0.30)
$FFlow_{t-3}$	.	.	.	.	.	.	.	-0.0001	.	-0.0002
	.	.	.	.	.	.	.	(-0.72)	.	(-1.29)
Stdev	.	.	.	.	.	-0.0971	.	-0.1372	.	-0.0976
	.	.	.	.	.	(-4.61)	.	(-4.03)	.	(-2.12)
Manager TNA	.	.	-0.0019	-0.0019	.	-0.0018	.	-0.0018	.	-0.0020
	.	.	(-21.51)	(-21.45)	.	(-20.77)	.	(-14.59)	.	(-12.01)
Num. funds managed	.	.	-0.0009	-0.0009	.	-0.0009	.	-0.0009	.	-0.0007
	.	.	(-13.66)	(-13.66)	.	(-14.26)	.	(-12.00)	.	(-7.35)
Trend	.	.	-0.0003	-0.0003	.	0.0029	.	0.0044	.	0.0016
	.	.	(-0.26)	(-0.25)	.	(2.12)	.	(2.25)	.	(0.57)
Exp. ratio	.	.	-0.0001	-0.0001	.	-0.0000	.	-0.0001	.	-0.0001
	.	.	(-0.97)	(-0.95)	.	(-0.53)	.	(-1.42)	.	(-0.72)
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fund family dummy	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	388517	388517	384073	384073	385652	380998	241302	208045	123499	108684
Adj. RSq.	0.0030	0.0004	0.0059	0.0057	0.0030	0.0065	0.0038	0.0096	0.0087	0.0112

Panel B: Career advancements

	Years of fund management experience									
	All observations				$\geq$ 1 year		$\geq$ 5 years		$\geq$ 10 years	
Female	-0.0041	-0.0039	-0.0048	-0.0049	-0.0039	-0.0047	-0.0014	-0.0015	-0.0000	-0.0005
	(-1.58)	(-1.55)	(-1.87)	(-1.88)	(-1.52)	(-1.81)	(-0.71)	(-0.77)	(-0.01)	(-0.18)
Foreign (incl.guess)	.	.	.	0.0077	.	0.0077	.	-0.0038	.	-0.0022
	.	.	.	(2.09)	.	(2.08)	.	(-1.31)	.	(-0.52)
$Alpha_{t-1}$	.	.	.	.	.	0.0013	.	0.0031	.	0.0044
	.	.	.	.	.	(1.37)	.	(4.40)	.	(4.90)
$Alpha_{t-2}$	.	.	.	.	.	.	.	0.0032	.	0.0029
	.	.	.	.	.	.	.	(4.40)	.	(3.19)
$Alpha_{t-3}$	.	.	.	.	.	.	.	0.0003	.	0.0006
	.	.	.	.	.	.	.	(0.51)	.	(0.63)
$FFlow_{t-1}$	.	.	.	.	.	0.0030	.	0.0017	.	0.0015
	.	.	.	.	.	(5.93)	.	(3.40)	.	(2.33)
$FFlow_{t-2}$	.	.	.	.	.	.	.	0.0014	.	0.0011
	.	.	.	.	.	.	.	(2.38)	.	(1.52)
$FFlow_{t-3}$	.	.	.	.	.	.	.	-0.0000	.	0.0011
	.	.	.	.	.	.	.	(-0.00)	.	(1.88)
Stdev	.	.	.	.	.	-0.1221	.	0.2265	.	0.4738
	.	.	.	.	.	(-0.90)	.	(1.83)	.	(2.97)
Manager TNA	.	.	-0.0018	-0.0018	.	-0.0019	.	-0.0020	.	-0.0018
	.	.	(-3.24)	(-3.18)	.	(-3.27)	.	(-4.41)	.	(-3.09)
Num. funds managed	.	.	-0.0027	-0.0027	.	-0.0028	.	-0.0011	.	-0.0008
	.	.	(-6.68)	(-6.68)	.	(-6.70)	.	(-4.01)	.	(-2.18)
Trend	.	.	0.0224	0.0224	.	0.0154	.	-0.0028	.	0.0069
	.	.	(2.60)	(2.60)	.	(1.76)	.	(-0.40)	.	(0.73)
Exp. ratio	.	.	-0.0018	-0.0018	.	-0.0018	.	-0.0011	.	-0.0015
	.	.	(-4.24)	(-4.21)	.	(-4.08)	.	(-3.33)	.	(-3.31)
Year dummy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Fund family dummy	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
Obs.	388517	388517	384073	384073	385652	380998	241302	208045	123499	108684
Adj. RSq.	0.0015	0.0013	0.0028	0.0017	0.0015	0.0019	0.0028	0.0039	0.0051	0.0062