

# The Effect of Fund Managers' Status on Money Flows, Performance, and Risk-Taking Behaviors

Jerry T. Parwada  
[j.parwada@unsw.edu.au](mailto:j.parwada@unsw.edu.au)  
School of Banking and Finance  
The University of New South Wales

Kian M. E. Tan\*  
[eric.tan@otago.ac.nz](mailto:eric.tan@otago.ac.nz)  
Department of Accountancy and Finance  
The University of Otago

## Abstract

This paper examines the effect of fund managers' status on funds' subsequent money flows, performance, and risk-taking behaviors. Using the U.S. mutual fund industry as a laboratory from 1993 to 2013, this paper takes advantage of the shifts in fund managers' status following the introduction of Morningstar's Fund Manager of the Year (FMOY) award. While we find investors to respond positively to award-winning fund managers, we do not find such award-winning managers to generate positive risk-adjusted performance following receiving the award. Our further tests show that such underperformance is driven by diseconomies of scale rather than higher fund fees charged by award-winning managers. Finally, we find award-winning managers to decrease their fund volatility in their apparent bid to lock-in to their relative advantage. Our results suggest that the ex-post value consequences of superstar status for investors are negative.

Keywords: Mutual Funds, Fund Manager Award, Fund Flows, Performance, Risk-Taking

JEL Classifications: G23, G28

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## **I. Introduction**

The Fund Manager of the Year (FMOY) award, recognized as one of the most important in the industry, has been announced by Morningstar in early January every year since 1988. The award is intended to recognize fund managers with a proven track record of success in achieving a praiseworthy performance against their peers while also acting as exemplary stewards of investors' capital. Well-known recipients of the award include Peter Lynch from Fidelity's Magellan Fund, and William Gross, the co-founder of the world's largest bond-fund, PIMCO, and portfolio manager of the PIMCO Total Return Fund. The award has attracted increased public attention through several media sources, including Bloomberg, Business Week, CNBC, Forbes, Reuters, Wall Street Journal, and others. This paper examines the effect of fund managers' status after winning Morningstar's FMOY award on subsequent fund flows and performance. In other words, do superstar fund managers attract positive abnormal flows and generate superior performance following receiving the FMOY award?

The existence of a superstar system has been examined extensively in both theoretical and empirical frameworks. On the theoretical side, Rosen (1981) explains the phenomenon of superstars as the concentration of a few individuals that dominate the activities in which they engage, which results in a highly skewed distribution of income, market share, and public attention. While economists often argue that the rents accruing to these "superstars" are a natural product of scarcity, a recent theoretical paper by Tervio (2009) shows that such high wages are driven by a talent revelation process rather than by an underlying scarcity of talents. On the empirical side, Malmendier and Tate (2009) find that award-winning CEOs underperform and extract more compensation following the award. In addition, Shemesh (2014) finds that award-winning CEOs decrease their idiosyncratic volatility, reduce their spending in research and development, and increase their investment in physical assets in their efforts to lock-in to their relative advantage. Furthermore, a more recent paper by Ammann, Horsch, and Oesch (2015) finds the existence of superstar CEOs provides strong incentives for competing

CEOs to perform better. While the effect of CEO social status has been widely studied in the corporate finance literature, it remains a puzzle whether the increased status or publicity of fund managers exacerbates the agency problems in the U.S. mutual fund industry with US\$15 trillion of assets under management at year-end 2013 (ICI, 2014). To the best of our knowledge, this is the first study that examines the ex-post value consequences of being a superstar fund manager. Our empirical identification strategy follows the seminal paper by Malmendier and Tate (2009) by constructing a sample of fund managers who experience a status shock through FMOY awards.

There are two main sections in this paper. First, the paper examines the effect of award-induced changes in status on funds' subsequent money flows. The asymmetric relationship between mutual fund flows and past performance has been widely documented in the previous literature. Funds with superior recent performance enjoy disproportionately large new money inflows, while funds with poor performance suffer smaller outflows. Given the publicity that a superstar fund manager gets, this paper argues that such a status will be associated with greater fund flows following the award. This is supported by Sirri and Tufano (1998), Jain and Wu (2000), Huang, Wei, and Yan (2007), Gallaher, Kaniel, and Starks (2008), Del Guercio and Tkac (2008), and Solomon, Soltes, and Sosyura (2014), who argue that lower search or participation costs are an important determinant of fund flows. This leads to the first hypothesis: H1: A winner of the FMOY award is associated with more positive abnormal fund flows than non-winner counterparts.

Second, this paper examines the effects of the award on funds' subsequent performance. This has attracted great deal of attention in CEO literature but less so in the U.S. mutual fund industry. For example, Malmendier and Tate (2005, 2008) show that overconfident CEOs can account for corporate investment distortions and undertake value-destroying mergers. Moreover, in their follow-up paper, Malmendier and Tate (2009) find award-winning CEOs underperform over the three years following the award relative to a matched sample. In the mutual fund

context, Nanda, Wang, and Zheng (2004) show that a naïve strategy of chasing families with superstar performers does not enhance investor return. Clearly, being overconfident or achieving social/superstar status (in this context, winning the FMOY award) is not value enhancing. This leads to the second hypothesis: H2: A winner of the FMOY award suffers in terms of fund performance.

Third, this paper examines the managerial risk-taking behaviors of fund managers after winning the FMOY award. In the corporate finance literature, Shemesh (2014) finds that award-winning CEOs decrease their idiosyncratic volatility through a reduction in spending in research and development and increase investment in physical assets in their efforts to lock-in to their relative advantage. In the mutual fund industry, Kempf and Ruenzi (2008) find evidence of a tournament effect, whereby mid-year losers in large families appear to increase risk more than mid-year winners in their pursuit for the top position in the fund family. Given prior evidence that gaining superstar status or being in the top position in a tournament are associated with lower risk-taking behaviors; in this paper, we conjecture that fund managers that win the FMOY award are more likely to reduce their managerial risk-taking activities in their efforts to maintain their relative position. This leads to the third hypothesis: H3: A winner of the FMOY award is associated with lower risk-taking behaviors than non-winner counterparts.

Our main results are summarized as follow. First, we find award-winning managers to be associated with positive money flows up to six months following receiving the FMOY award and that such effects disappear after six months. Our findings are robust to using an abnormal fund flows measure following the methodology of Del Guercio and Tkac (2008) and Cooper, Gulen, and Rau (2005). Second, we find award-winning managers to underperform by 3.08% in the 12 months following the announcement of the FMOY award. Our further tests show that the underperformance of award-winning managers is driven by diseconomies of scale at the family level, as superstar fund managers will need to cope with an influx of money flows to its own funds and other funds in the family due to greater publicity. We do not find evidence that the

underperformance is driven by high fund fees set by award-winning managers following receiving the FMOY award. The results are in contrast to the findings of Malmendier and Tate (2009), who find award-winning CEOs to extract more compensation following the award. Finally, we find that award-winning managers decrease their fund volatility in their apparent bid to lock-in to their relative advantage.

We contribute to the literature in several ways. First, the collective evidence in the prior literature suggests that investors often respond to funds that attracted their attention in the form of past performance, fund family size, and marketing and distribution efforts. However, there is some doubt about whether investors actually benefited from being influenced by such attention-grabbing information. For example, while Jain and Wu (2000) find that advertised funds attract significantly more money, they do not find evidence of superior performance during the post-advertisement period. Barber, Odean, and Zheng (2005) find that investors are more sensitive to salient, in-your-face fees like front-end loads, but less so on operating expenses, even though such expenses impact negatively on fund performance. It is therefore of particular importance to examine the ex-post value consequences of investing with a superstar fund manager. It is often suggested in the corporate finance literature that increased status is associated with “perks” and entrenchment (see Jensen and Meckling, 1976; Jensen, 1986). This paper seeks to address the agency problems between fund managers and investors so that investors can make informed investment decisions.

Second, this paper aims to shed some light on the managerial ability of fund managers. While various studies have demonstrated that mutual fund managers are unable to beat standard performance benchmarks on a risk-adjusted basis, after taking into account expenses (see, e.g., Carhart, 1997), there is some support for persistence in the ability of managers (the “hot hands” phenomenon). The managers’ characteristics are equally important as well. For example, Chevalier and Ellison (1999) and Gottesman and Morey (2006) find a positive relation between manager education and mutual fund performance. However, there remains a lack of clarity about

the effects of increased fund managers' status on subsequent fund performance. In other words, are investors better off when investing with superstar fund managers?

The rest of this paper is organized as follows. Section II provides the relevant background of the FMOY award and a description of our data and sample construction. Section III presents the methods used to test our hypotheses. Section IV reports our empirical findings. In Section V, we present our robustness tests and Section VI concludes.

## **II. Data**

### **A. Background of the FMOY Award**

Morningstar's FMOY award began in 1987, when the company selected an exemplary fund manager as fund manager of the year. In contrast to Morningstar's "star" rating methodology, the FMOY award is principally founded on quantitative information contained in Morningstar's fund medalist rating which is used to distinguish funds that Morningstar's fund analysts believe have bright future prospects (i.e., forward-looking measure). Beginning in September or October of every award year, Morningstar's fund analysts begin to consider potential candidates for the award. The analysts then recommend fund managers for the award, and asset class experts then vet these nominations. The final decision is made following a final meeting of the fund analysts in January of the following year.

Although the award is decided by vote, Morningstar highlights the main guidelines for a fund manager to become a contender for the award. First, the manager's fund must be a Morningstar medalist, be it in the Bronze, Silver or Gold category. This initial selection criterion narrows down potential winner funds to just over 10% of mutual funds that are available to investors. Further, the fund manager must have a track record of delivering good returns, together with a stellar year. Morningstar's fund analysts also question the investment decisions made by the fund manager in order to assess the manager's strategies and to separate lucky performance outcomes from skillful investing. In addition, the fund manager must also display

an “exemplary stewardship of investor’s capital,” highlighting the need for the fund manager to be dedicated in fulfilling his or her fiduciary responsibility to the fund’s investors.

Initially, the award spread across multiple mutual fund styles; however, in 1995, Morningstar split the award into three categories – domestic stock, fixed income, and international stock. As such, we construct our dataset by hand-collecting a list of the winners of the FMOY award in the categories of domestic stocks, fixed income, and international stocks from 1995 to 2012. It is important to note that in 2012, Morningstar introduced two additional awards in the “allocation” and “alternatives” categories. However, given insufficient observations in these two categories, we decided to drop such observations from our empirical analysis. Finally, throughout the paper, we will carry out our empirical analysis solely on actively managed U.S. domestic equity funds in order to facilitate a comparison with prior literature. The empirical results on fixed income funds and international funds will be presented in the robustness test section for the sake of brevity.

## **B. Sample Construction**

We then merge the FMOY award data with the Morningstar Direct database to obtain information on fund size, age, fund fees, returns, investment objectives, and turnover ratios. Fund manager characteristics (such as age, tenure, and experience) will also be sourced from the Morningstar Direct database and supplemented by other resources, such as U.S. Securities and Exchange Commission filings, mutual fund websites, and ZoomInfo.

To facilitate comparison with the prior literature on performance and money flows, this study focuses on actively managed U.S. domestic equity funds. Following Chen et al. (2004), we exclude index and specialized sector funds from our sample.<sup>1</sup> Next, we apply two criteria to eliminate two known potential biases associated with the mutual fund database. First, to address

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<sup>1</sup> We perform such filtering using the Morningstar category classifications from the following link: [http://corporate.morningstar.com/us/documents/MethodologyDocuments/MethodologyPapers/MorningstarCategory\\_Classifications.pdf](http://corporate.morningstar.com/us/documents/MethodologyDocuments/MethodologyPapers/MorningstarCategory_Classifications.pdf)

incubation bias, we exclude funds that existed prior to the reported fund starting date (Evans, 2010) and exclude observations whose fund names are missing from the Morningstar database. Second, we exclude funds with assets under management (AUM) of less than \$15 million, since only successful funds enter the database (Elton, Gruber, and Blake, 2001). The final sample consists of 3,865 domestic equity funds managed by 7,294 fund managers in 670 fund families, covering 993,341 manager-fund-month observations from 1995 to 2013.

### **C. Descriptive Statistics**

We start by reporting the FMOY award winners under the category of “Domestic Stock” from 1995 to 2012 in Table 1.<sup>2</sup> The list of FMOY award winners ends in 2012, as our empirical design requires one year of data to examine the effect of winning the FMOY award on subsequent money flows, performance, fund fees, and risk-taking activities. While the FMOY award is typically awarded to individual fund managers managing specific funds, there are several occurrences of the award being given to multiple managers managing multiple funds. For example, in 2003, we classified Howard Schow, Joel Fried, and Theo Kolokotronis as winners individually for both Vanguard Primecap and Vanguard Capital Opportunity in our sample. Overall, in our sample, we have a total of 44 FMOY award winners.

*< Insert Table 1 here >*

Next, we report the characteristics of winner and non-winner funds in Table 2. Panel A shows summary statistics for winner funds only, while Panel B shows summary statistics for non-winner funds. In Panel C, we perform a difference-in-means test to determine if there are any significant differences between award-winning managers and non-award-winning managers. We compare the means of both groups across all mutual fund characteristics and performance measures. The winner funds are generally smaller in fund size and belong to smaller fund families than non-winner funds. The average size of a winner fund is \$193 million, and it belongs

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<sup>2</sup> A list of FMOY award winners under the “Fixed Income” and “International Stock” categories is made available in the appendix.



to a family with \$15.927 billion of assets under management. This is in contrast to an average fund size of \$322 for non-winner funds, which belong to families with AUM averaging \$17.855 billion. The winner funds are associated with a lower expense ratio, distribution fees, and turnover ratio than non-winner counterparts. Finally, consistent with our expectations, winner funds are associated with higher fund returns, a fewer number of managers, managers who are generally older and who have longer tenure and asset management experience in the U.S. mutual fund industry.

< Insert Table 2 here >

We also construct a correlation matrix on our key control variables (i.e., *Log(Fund Size)*, *Log(Fund Age)*, *Log(Family Size)*, *Expense Ratio*, *Turnover Ratio*, *Volatility*, *Fund Flow*, *Fund Alpha*, *Team Size*, *Log(Manager Age)*, *Log(Manager Tenure)*, and *Log(Manager Experience)*) based on the full sample and calculate the condition index of the matrix as 2.56. Such a low condition index shows there is no multicollinearity.

< Insert Table 3 here >

#### **D. Preliminary Analysis on Fund Flow and Fund Alpha Surrounding FMOY Award**

To examine the money flows and fund alpha surrounding the announcement of the FMOY award, we plot two figures on fund flow and fund alpha for both winners and non-winners following receiving the FMOY award at time  $t=0$ . In Chart A, we find the differences in cumulative fund flow for both winner and non-winner funds are minimal during the pre-announcement period of the FMOY award. However, such differences increase drastically following the announcement of the FMOY award due to positive fund flows directed to winning managers. In Chart B, we find the differences in cumulative fund alpha to increase prior to the announcement of the FMOY award, consistent with the notion that winning managers had a good track of historical performance. Interestingly, such differences decrease following the announcement of the FMOY award, which suggests that the performance of award-winning

managers is impacted to a certain degree due to greater publicity. We subject our preliminary findings to more rigorous multivariate tests controlling for fund and manager characteristics in the following section.

< Insert Figure 1 here >

### III. Methods

#### A. Fund Flow Measures

How do investors react to superstar fund managers? To address this issue, we follow Sirri and Tufano (1998) in calculating mutual fund flows as the percentage net growth in fund assets beyond reinvested dividends. We assume that all distributions made to investors are subsequently reinvested with the fund. This measure of fund flows represents the net demand for a mutual fund, where a positive flow indicates that on average investors are entering the fund, while a negative flow indicates that investors are withdrawing funds.

$$Fund\ Flow_{i,t:t+k} = \frac{TNA_{i,t:t+k} - TNA_{i,t}(1+R_{i,t:t+k})}{TNA_{i,t}} \quad (1)$$

To examine the effect of winning FMOY award on subsequent fund flows, we estimate the following regression model as presented in equation (2) below.

$$\begin{aligned} Fund\ Flow_{i,t:t+k} &= \alpha_{i,t} + \beta_1 Winner_{i,t} + \beta_2 Log(Fund\ Size)_{i,t} + \beta_3 Log(Fund\ Age)_{i,t} \\ &+ \beta_4 Log(Family\ Size)_{i,t} + \beta_5 Expense\ Ratio_{i,t} + \beta_6 Turnover\ Ratio_{i,t} \\ &+ \beta_7 Distribution\ Fee_{i,t} + \beta_8 Volatility_{i,t} + \beta_9 Category\ Flow_{i,t} \\ &+ \beta_{10} Low_{i,t} + \beta_{11} Medium_{i,t} + \beta_{12} High_{i,t} + \beta_{13} Team\ Size_{i,t} \\ &+ \beta_{14} Log(Manager\ Age)_{i,t} + \beta_{15} Log(Manager\ Tenure)_{i,t} \\ &+ \beta_{16} Log(Manager\ Experience)_{i,t} + \varepsilon_{i,t}, \end{aligned} \quad (2)$$

where  $Fund\ Flow_{i,t:t+k}$  represents the percentage of the flow of money entering or exiting fund  $i$  over three-, six-, nine-, and 12-month future horizons.  $Winner$  is a binary indicator equal to one

if the manager wins the FMOY award and zero otherwise.  $\text{Log}(\text{Fund Size})$  is the natural logarithm of the fund's total net assets in millions of dollars.  $\text{Log}(\text{Fund Age})$  is the natural logarithm of the fund's age in years, where age is calculated as the difference between the data date and the date that the fund first appeared in the CRSP mutual fund database.  $\text{Log}(\text{Family Size})$  is the natural logarithm of the combined total net assets of all funds managed by a fund family in millions of dollars.  $\text{Expense Ratio}$  is the percentage of fund assets charged by the fund on an annual basis to compensate for operating costs, and includes the management fee and 12b-1 fees.  $\text{Turnover Ratio}$  measures the percentage of fund assets that are renewed, and is calculated as the minimum of sales and purchases divided by the average yearly fund size.  $\text{Distribution Fee}$  is the cost paid by the fund for marketing and distribution.  $\text{Volatility}$  is measured by the standard deviation of a fund's net returns over the past 12 months.  $\text{Category Flow}$  is the aggregate flow into each fund category at time  $t$ . Since the flow-performance relationship is non-linear for mutual funds, we follow Sirri and Tufano (1998) by introducing fractional performance ranks based on fund alpha.  $\text{Low}_{i,t}$  is defined as  $\min(\text{Rank}_t, 0.2)$ ,  $\text{Mid}_{i,t}$  is defined as  $\min(\text{Rank}_t - \text{Low}, 0.6)$ , and  $\text{High}_{i,t}$  is defined as  $\min(\text{Rank}_t - \text{Low} - \text{Mid}, 0.2)$ .  $\text{Team Size}$  is the number of managers managing the fund.  $\text{Log}(\text{Manager Age})$  is the natural logarithm of average fund manager's age in a fund.  $\text{Log}(\text{Manager Tenure})$  is the natural logarithm of average fund manager's tenure in a fund.  $\text{Log}(\text{Manager Experience})$  is the natural logarithm of average fund manager's experience in the asset management industry.

## B. Performance Measures

Are superstar fund managers able to maintain their performance after winning the FMOY award? To answer this question, we construct conditional fund alphas (*Fund Alpha*) using the Carhart (1997) four-factor models and predetermined instruments, as proposed by Ferson and Schadt (1996), as the performance measure for this study.

$$r_{Fd} - R_f = \alpha + \beta_1(R_m - R_f) + \beta_2\text{SMB} + \beta_3\text{HML} + \beta_4\text{UMD} + \beta_5\text{Instruments} + \varepsilon_{Fd}, \quad (3)$$

where  $r_{Fd}$  is a fund's monthly return;  $R_f$  is the risk-free return rate;  $R_m$  is the return of the S&P 500 market;  $SMB$  is "Small Minus Big," which accounts for the spread in returns between small and large-sized funds based on total net assets under management;  $HML$  is "High Minus Low," which accounts for the spread in returns between value and growth funds; and  $UMD$  represents the momentum factor loadings. Instruments, as proposed by Ferson and Schadt (1996), include dividend yield of the CRSP index, a yield spread (long- minus short-term bonds), the yield on a short-term Treasury bill, a corporate bond yield spread (low- minus high-grade bonds), and a dummy variable for Januarys.

To examine the effect of winning the FMOY award on a fund's subsequent performance, we run the regression model as presented in equation (4) below.

$$\begin{aligned}
\text{Fund Alpha}_{i,t:t+k} &= \alpha_{i,t} + \beta_1 \text{Winner}_{i,t} + \beta_2 \text{Log}(\text{Fund Size})_{i,t} + \beta_3 \text{Log}(\text{Fund Age})_{i,t} \\
&+ \beta_4 \text{Log}(\text{Family Size})_{i,t} + \beta_5 \text{Expense Ratio}_{i,t} + \beta_6 \text{Turnover Ratio}_{i,t} \\
&+ \beta_7 \text{Volatility}_{i,t} + \beta_8 \text{Fund Flow}_{i,t} + \beta_9 \text{Fund Alpha}_{i,t} + \beta_{10} \text{Team Size}_{i,t} \\
&+ \beta_{11} \text{Log}(\text{Manager Age})_{i,t} + \beta_{12} \text{Log}(\text{Manager Tenure})_{i,t} \\
&+ \beta_{13} \text{Log}(\text{Manager Experience})_{i,t} + \varepsilon_{i,t}
\end{aligned} \tag{4}$$

where *Fund Alpha* is the compounded monthly fund's alpha calculated based on Carhart's four-factor model and conditional on instruments as proposed by Ferson and Schadt (1996). *Winner* is a binary indicator equal to one if the manager wins the FMOY award and zero otherwise. *Fund Flow* is the measure of inflow and outflow of assets. All other explanatory variables are as explained above.

### C. Fund Fees Measure

Do superstar fund managers decrease or increase fund fees following receiving the FMOY award? To address this issue, we utilize an OLS regression model to examine the relation

between winning the FMOY award and the level of fund fees following the announcement of the award, as presented in equation (5) below.

$$\begin{aligned}
Fund\ Fees_{i,t} = & \alpha_{i,t} + \beta_1 Winner_{i,t} + \beta_2 Log(Fund\ Size)_{i,t} + \beta_3 Log(Fund\ Age)_{i,t} \\
& + \beta_4 Log(Family\ Size)_{i,t} + \beta_5 Turnover\ Ratio_{i,t} + \beta_6 Volatility_{i,t} \\
& + \beta_7 Fund\ Flow_{i,t} + \beta_8 Fund\ Alpha_{i,t} + \beta_9 Team\ Size_{i,t} \\
& + \beta_{10} Log(Manager\ Age)_{i,t} + \beta_{11} Log(Manager\ Tenure)_{i,t} \\
& + \beta_{12} Log(Manager\ Experience)_{i,t} + \varepsilon_{i,t},
\end{aligned} \tag{5}$$

where  $Fund\ Fees_{i,t}$  is the level of non-12b-1 and 12b-1 fees in the subsequent three-, six-, nine-, and 12-month period following the announcement of the FMOY award. *Non-12b-1 Fee* is calculated by subtracting the 12b-1 fee from the expense ratio following Barber, Odean, and Zheng (2005). *12b-1 Fee* is the cost paid by the fund for marketing and distribution. *Winner* is a binary indicator equal to one if the manager wins the FMOY award and zero otherwise. All other explanatory variables are as explained above.

#### **D. Risk-Taking Measure**

Do superstar fund managers undertake more or fewer risk-taking activities? To examine the research question, we follow the technique of Kempf and Ruenzi (2008) by using the standard deviation of a fund's return in the subsequent three-, six-, nine-, and 12-month period as proxy for managerial risk-taking behaviors. We then regress future fund volatility on a set of control variables, as presented in equation (6) below.

$$\begin{aligned}
Volatility_{i,t:t+k} &= \alpha_{i,t} + \beta_1 Winner_{i,t} + \beta_2 \text{Log}(\text{Fund Size})_{i,t} + \beta_3 \text{Log}(\text{Fund Age})_{i,t} \\
&+ \beta_4 \text{Log}(\text{Family Size})_{i,t} + \beta_5 \text{Expense Ratio}_{i,t} + \beta_6 \text{Turnover Ratio}_{i,t} \\
&+ \beta_7 Volatility_{i,t} + \beta_8 \text{Fund Flow}_{i,t} + \beta_9 \text{Fund Alpha}_{i,t} + \beta_{10} \text{Team Size}_{i,t} \\
&+ \beta_{11} \text{Log}(\text{Manager Age})_{i,t} + \beta_{12} \text{Log}(\text{Manager Tenure})_{i,t} \\
&+ \beta_{13} \text{Log}(\text{Manager Experience})_{i,t} + \varepsilon_{i,t}, \tag{6}
\end{aligned}$$

where *Volatility* is the standard deviation of a fund's risk adjusted returns over future periods (in our case, three-, six-, nine-, and 12-month periods). *Winner* is a binary indicator equal to one if the manager wins the FMOY award and zero otherwise. All other explanatory variables are as explained above.

## IV. Empirical Results

### A. The Effect of Winning the FMOY Award on Money Flows

In this section, we provide the OLS regression results on the effect of winning the FMOY award on money flows in the subsequent three-, six-, nine-, and 12-month periods. The key explanatory variable is *Winner*, which is a binary indicator equal to one if the manager wins the FMOY award and zero otherwise. In models (1) and (2) of Table 4, we find winning the FMOY award to be associated with positive money flows of 8.1% and 11.8% in the subsequent three- and six-month periods, respectively, in comparison to non-award-winning managers. In terms of economic magnitude, if we were to consider the average winner fund that has \$193 million in AUM at the time of the FMOY award announcement, this effect would correspond to \$16 million and \$23 million worth of fund inflows in the subsequent three- and six-month periods. The findings are consistent with our conjecture that the publicity superstar fund managers enjoy from receiving the FMOY award helps to lower the search and participation costs of investors (see Sirri and Tufano, 1998; Jain and Wu, 2000; Huang, Wei, and Yan, 2007;

Gallaher, Kaniel, and Starks, 2008; Del Guercio and Tkac, 2008; Solomon, Soltes, and Sosyura, 2014).

The findings of our control variables shown in Table 4 are consistent with those demonstrated in previous studies. First, we find evidence of an asymmetric flow-performance relationship, as shown by a positive coefficient for the high-performance rank variables (e.g., Ippolito 1992; Gruber 1996; Chevalier and Ellison 1997; Sirri and Tufano 1998). Second, consistent with Chevalier and Ellison (1997), we find the level of flows to be lower for older funds. Third, we find that expense ratio is negatively related to fund flows, consistent with the argument that investors are sensitive to high fund fees (Barber, Odean, and Zheng, 2005) albeit weak in terms of its statistical significance. Fourth, the regression coefficient on *Volatility* is negative and statistically significant at the 1% level, which suggests that investors are sensitive to funds with high past volatility.

< *Insert Table 4 here* >

## **B. The Effect of Winning the FMOY Award on Fund Performance**

We now consider the effect of winning the FMOY award on future fund performance. This issue is of interest considering the additional money flows that are being directed to award-winning managers due to greater publicity surrounding the announcement of the FMOY award. This leads to our next research question on whether superstar managers are able to maintain their fund performance following receiving the FMOY award. To answer this question, we utilize Carhart's (1997) four-factor models and predetermined instruments as proposed by Ferson and Schadt (1996) to construct the performance measure in this study.

In Table 5, we report the OLS regression results on the effect of our key explanatory variable, *Winner*, on future fund alpha across different three-, six-, nine-, and 12-month periods following the announcement of the FMOY award, controlling for fund and manager characteristics. In model (1), we do not find any effect of winning the FMOY award on

performance in the subsequent three-month period. However, by extending our performance analysis beyond the three-month period, we find award-winning managers to underperform by 1.96%, 2.29%, and 3.08% in the subsequent six-, nine-, and 12-month periods, respectively, in comparison with non-award-winning managers. Such underperformance is economically significant. The Investment Company Institute estimates the average account sizes for household and institutional investors to be \$27,000 and \$41 million, respectively.<sup>3</sup> The underperformance of 3.08% in the subsequent 12-month period would correspond to a \$832 and \$1,262,800 opportunity cost to households and institutional investors, respectively, who invested in award-winning managers.

The findings on the control variables are explained as follows. First, we find  $\text{Log}(\text{Fund Size})$  and  $\text{Log}(\text{Family Size})$  to be negative and statistically significant at the 1% level across four regression models. In other words, we show that the performance of funds declines with fund and family size as measured by total net assets under management at the fund and family unit levels. Such findings are consistent with Chen et al. (2004) on the existence of diseconomies of scale in mutual funds. Second, we find past volatility and money inflows to be detrimental to future fund performance. Third, we find evidence that funds managed by older managers and managers with longer tenure are associated with poorer performance.

< Insert Table 5 here >

### **C. Channels of Mutual Fund Underperformance**

So far, we have concentrated on the effect of winning the FMOY award on subsequent money flows and fund performance. Next, we explore the channels through which changes in a fund manager's status affect fund performance. We examine two plausible channels. First, the negative impact of winning the award on post-award performance can be driven by new money flowing into the funds, thereby resulting in diseconomies of scale, as documented by Chen et al.

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<sup>3</sup> Available at [http://www.ici.org/pdf/ppr\\_06\\_mf\\_inst\\_comparison.pdf](http://www.ici.org/pdf/ppr_06_mf_inst_comparison.pdf).



(2004). Second, it is also plausible that winners increase their fund fees to signal managerial ability. Finding negative performance following the award will support the notion that winners simply extract rents from investors by charging higher fees. This is in line with the findings of Malmendier and Tate (2009), who find CEOs extracting more compensation following the awards.

## 1. Diseconomies of Scale Argument

Are the findings on the poor mutual fund performance of award-winning managers following the announcement of the FMOY award due to diseconomies of scale? One may argue that award-winning managers will have to cope with an influx of new money flows and therefore experience diseconomies of scale as a result of greater publicity or visibility following the announcement of the FMOY award. To address this issue, we interact the *Winner* variable with  $\text{Log}(\text{Fund Size})$  and  $\text{Log}(\text{Family Size})$  to examine whether the size of the fund and family unit levels plays a role in explaining the underperformance of award-winning managers following the announcement of the FMOY award.

In model (1) of Table 6, we present our base model without the inclusion of our interaction variables, and we interact our *Winner* variable with  $\text{Log}(\text{Fund Size})$  and  $\text{Log}(\text{Family Size})$  in models (2) and (3) separately. The regression coefficient of our interaction variable between *Winner* and  $\text{Log}(\text{Family Size})$  is negative and statistically significant at the 5% level. The results are consistent with our expectation that the underperformance of award-winning managers is due to diseconomies of scale at the family unit level, possibly due to positive money flows directed to other funds that are affiliated with fund families that host the winner of the FMOY award. This is further supported by Nanda, Wang, and Zheng (2004), who document strong evidence that star managers result in greater cash inflow to the funds and to other funds in the same family. Our results are robust to the inclusion of both interactions (i.e.,  $\text{Winner} * \text{Log}(\text{Fund Size})$  and  $\text{Winner} * \text{Log}(\text{Family Size})$ ) in our regression model presented in model (4).

< Insert Table 6 here >

## 2. Extraction of Rents by Award-Winning Managers?

It is also plausible that the poor performance of award-winning managers is due to the incentives of managers to increase fund fees following the announcement of the FMOY award, either to signal managerial ability or to simply extract rents from investors. To examine whether the underperformance is driven by the higher fund fees, we next model the behaviors of award-winning managers to increase or decrease their fund fees following receiving the FMOY award. We consider the non-12b-1 and 12b-1 fees separately because they serve different purposes. The non-12b-1 fee is compensation for a fund's investment expertise, while the 12b-1 fee is the cost paid by a fund to market and distribute fund shares through broker dealers.

In models (1) to (4) of Table 7, focusing on the non-12b-1 fee, we find evidence to suggest that award-winning managers reduce the non-12b-1 fee in the subsequent six- and nine-month following receiving the FMOY award. This is in contrast to our earlier conjecture that award-winning managers are more likely to increase fund fees in order to signal their managerial ability or to possibly extract rents from investors. We attribute our findings to previous literature on the detrimental effect of high fund fees on performance and flows (Carhart 1997; Barber, Odean, and Zheng 2005). As such, it is unsurprising to observe award-winning managers reducing fund fees in their attempt to attract new investors into the funds. In models (5) to (8), we investigate the level of 12b-1 fees following the announcement of the FMOY award. We find no relation between our *Winner* variable and the level of the 12b-1 fee. This suggests that award-winning managers do not actively modify their 12b-1 fee structure based on the increased publicity they get from winning the FMOY award.

Other results are as follows. First, the  $\text{Log}(\text{Fund Size})$ ,  $\text{Log}(\text{Fund Age})$ , and  $\text{Log}(\text{Family Size})$  variables have a negative relation with non-12b-1 fees. This is consistent with our expectations. Older funds have more operational knowledge to achieve efficiency, while larger funds and fund

families are able to gain economies of scale from being part of larger fund complexes. Second, we find larger fund families to spend less on marketing and distribution expenses (i.e., 12b-1 fees) because of their higher visibility to investors. Our overall findings are robust to the inclusion of time, fund, and manager fixed effects.

< Insert Table 7 here >

#### **D. The Effect of Winning the FMOY Award on Risk-Taking Activities**

Next, we examine whether award-winning managers increase or decrease risk-taking activities following receiving the FMOY award. We conjecture that award-winning managers are more likely to reduce managerial risk-taking activities in order to lock-in their relative advantage relative to their non-award-winning manager counterparts (Shemesh, 2014). To model the risk-taking behaviors of award-winning managers, we define the *Risk Taking* variable as the standard deviation of a fund's risk-adjusted returns over future periods (in our case, three-, six-, nine-, and 12-month periods). A higher (lower) *Risk Taking* value would mean that fund managers are taking on more (less) risk-taking activities as explained by a higher (lower) standard deviation of a fund's future risk-adjusted returns.

In Table 8, we find award-winning managers to engage in fewer risk-taking activities in the subsequent six-, nine-, and 12-month periods following receiving the FMOY award. The results are consistent with our conjecture that award-winning managers reduce the risk levels in their portfolio in their apparent bid to maintain their relative advantage over non-award-winning managers. Our findings are also in line with the findings of Kempf and Ruenzi (2008) who find mid-year losers in large families to increase risk more than mid-year winners. Our results are robust after controlling for fund and manager characteristics, with standard error clustered at the fund level and the inclusion of time, fund, and manager fixed effects in our regression models.

The findings on our control variables are as follows. First, we find that the regression coefficients on  $\text{Log}(\text{Fund Size})$ ,  $\text{Log}(\text{Fund Age})$ , and  $\text{Log}(\text{Family Size})$  are negative and statistically

significant. This suggests that larger funds, older funds, and funds that belong to larger fund families are associated with a lower number of future risk-taking activities. Second, we find funds with high turnover ratios to be associated with higher volatility in funds' returns. Third, we find that funds managed by a large group of managers are associated with a lower number of risk-taking activities, consistent with the findings of Kempf and Ruenzi (2008). Fourth, we find that managers with longer tenure are associated with greater risk aversion.

< Insert Table 8 here >

## V. Robustness Tests

### A. Event Study Methodology to Calculate Abnormal Flow

Following Del Guercio and Tkac (2008), we utilize an event study method to remove raw fund flow of the influence of all performance and nonperformance characteristics, so as to isolate the incremental flow due to the announcement of the FMOY award. To compute normal flow, we estimate a time-series benchmark regression for each individual fund  $i$ :

$$F_t^i = \gamma^i + \beta_1^i SF_t^i + \beta_1^i RET_{t-1}^i + \beta_1^i \Delta\alpha_{t-1}^i + \beta_1^i (\Delta\alpha_{t-1}^i)^2 + \beta_1^i F_{t-1}^i + \epsilon_t^i, \quad (7)$$

where  $F_t^i$  is the net dollar flow to fund  $i$  at month  $t$ ,  $SF_t^i$  is the aggregate net flow to all funds in the same style category as fund  $i$  at month  $t$ ,  $RET_{t-1}^i$  is fund  $i$ 's monthly return at  $t-1$ ,  $\Delta\alpha_{t-1}^i$  is the change in fund  $i$ 's Carhart four-factor conditional alpha from month  $t-2$  to  $t-1$ , and  $F_{t-1}^i$  is the net flow to fund  $i$  at month  $t$ .

The abnormal flow to fund  $i$  at time  $t$  equals the actual flow at time  $t$  minus the expected flow due to its aggregate style flow, lagged return, lagged change in alpha, the square of lagged change in alpha, and lagged flow, minus the average abnormal flow to fund  $(\hat{\gamma}^i)$ .

$$AF_t^i = F_t^i - \hat{\gamma}^i - \hat{\beta}_1^i SF_t^i - \hat{\beta}_1^i RET_{t-1}^i - \hat{\beta}_1^i \Delta\alpha_{t-1}^i - \hat{\beta}_1^i (\Delta\alpha_{t-1}^i)^2 - \hat{\beta}_1^i F_{t-1}^i - \epsilon_t^i \quad (8)$$

Next, we calculate standardized abnormal flow (SAF) by dividing abnormal flow (AF) by the estimated forecast variance (RMSE) of the abnormal flow in order to weigh more heavily on

funds with more precisely measured abnormal flows (or funds with lower forecast variance). Consistent with our main results, in Table 9, we find award-winning managers to be associated with a cumulative standardized abnormal flow (CUM\_SAF) of 3.086% in the subsequent 12 months following the announcement of the FMOY award, with the finding being statistically significant at the 1% level. We do not find such evidence for non-award-winning managers, and interestingly, managers that did not win the award experience money outflows in the subsequent 12 months.

*< Insert Table 9 here >*

## **B. Construction of a Matched Control Sample**

Cooper, Gulen, and Rau (2005) argue that the potential weakness of computing abnormal flows as realized flows minus the expected flows is that shocks that change expectations surrounding the announcement of the FMOY award would result in non-stationarity in the model's estimated parameters, and thereby incorrect expected flow estimates. To rule out the existence of biased estimates from driving our results, we follow the methodology of Cooper, Gulen, and Rau (2005) to compute abnormal flows using a propensity score matching algorithm.

To estimate a propensity score for each fund manager, we estimate a logistic regression to identify observable fund and manager characteristics that predict the winners of the FMOY award by assigning the dependent variable for each winner a dummy of 1, and all other fund managers 0. We use the following independent variables: the one-month lagged log of total net assets, 12-month return to the fund before winning the award, average fund flow and standard deviation of returns over the 12 months before winning the award, the 12b-1 marketing fees before winning the award, the Carhart four-factor conditional alpha of the fund, and the log of the age of the fund in months. Each winner (treated group) is then matched to a non-winner (control group), who, at the time of the award, had the closest predicted probability of winning,

or a propensity score (Rosenbaum and Rubin, 1983). In Panel A of Table 9, we present a difference in means test for the treatment and control groups. The difference in means tests between the treated and control groups are statistically insignificant at a conventional level of significance, which demonstrates that our procedure is effective.

In Panel B of Table 10, we track the fund flows for both treated and control groups in the subsequent 12 months following the announcement of FMOY award. In doing so, we are able to calculate abnormal fund flows, which are calculated as the difference of fund flow between winner and matching non-winner. We find the abnormal flows in the announcement month ( $t=0$ ) and in the subsequent quarter ( $t=3$ ) to be statistically significant at the 1% level. In Panel C of Table 10, using the cumulative abnormal flows measure, we find strong evidence of abnormal flows being directed to award-winning managers rather than non-award-winning managers, and such abnormal flows are observed to increase monotonically over the future periods.

*< Insert Table 10 here >*

### **C. Long-Term Effect of the FMOY Award**

To determine whether the effects of winning the FMOY award on money flows, performance, risk-taking activities persist over longer time periods, we extend our multivariate regression analysis over 24-, 36-, 48-, and 60-month periods. First, we find that positive money flows directed to superstar fund managers do not extend beyond the six-month period. Second, we find superstar managers to be associated with negative risk-adjusted returns up to 36 months following receiving the FMOY award. Third, we find superstar managers' engagement in reducing risk-taking activities to be of a short-term nature (i.e., up to nine months post the announcement of the FMOY award). The results are unreported for the sake of brevity but are available upon request.

#### D. Fixed Income and International Funds

Do we observe similar findings for fixed income and international funds? To answer this question, we reconstructed the risk-adjusted performance measure for fixed income funds following Chen, Ferson, and Peters (2010), and for international funds, we follow the methodology of Busse, Goyal, and Wahal (2013).<sup>4</sup> The construction of fund alpha for both fixed income and international funds are presented in equations (9) and (10) below.

$$\begin{aligned} r_{Fd} - R_f = & \alpha + \beta_1 \text{Short} - \text{Term} + \beta_2 \text{Slope} + \beta_3 \text{Curvature} + \beta_4 \text{Credit Spread} \\ & + \beta_5 \text{Mortgage Spread} + \beta_6 \text{Liquidity} + \beta_7 \text{US Dollar} + \beta_7 \text{Equity Value} \\ & + \beta_8 \text{Equity Volatility} + \varepsilon_{Fd} \end{aligned} \quad (9)$$

where *Short – Term* is the three-month Treasury rate, *Slope* is the 10-year yield less the one-year yield, *Curvature* is  $y_3 - (y_7 + 2y_1)/3$  where  $y_j$  is the  $j$ -year fixed maturity yield, *Credit Spread* is the yield of Baa corporate bonds minus Aaa bonds, *Mortgage Spread* is the difference between the average contract rate on new conventional mortgages, *Liquidity* is the spread of commercial paper over Treasury yields, *US Dollar* is the value of the U.S. dollar relative to a trade-weighted average of major trading partners, *Equity Value* is measured as the price/dividend ratio for the CRSP value-weighted index, and *Equity Volatility* is the CBOE implied volatility index.

$$\begin{aligned} r_{Fd} - R_f = & \alpha + \beta_1 \text{MKTRF}_D + \beta_2 \text{SMB}_D + \beta_3 \text{HML}_D + \beta_4 \text{UMD}_D + \beta_5 \text{MKTRF}_E \\ & + \beta_6 \text{SMB}_E + \beta_7 \text{HML}_E + \beta_8 \text{UMD}_E + \varepsilon_{Fd} \end{aligned} \quad (10)$$

where MKTRF is the market factor, *SMB* is a size factor, *HML* is a value factor, and *UMD* is a momentum factor for both developed (D) and emerging (E) markets.

We re-run all of our empirical analyses (i.e., Tables 4 to 8) on fixed income and international funds. We summarize our findings as follows. First, we find award-winning managers in both fixed income and international funds are associated with positive money flows

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<sup>4</sup> See Chen, Ferson, and Peters (2010) and Busse, Goyal, and Wahal (2013) for a more detailed description of the models.

following the announcement of the award. We find evidence, however, of abnormal fund flow for international funds only using event study and propensity score matching methods to construct abnormal fund flows (see Del Guercio and Tkac, 2008; Cooper, Gulen, and Rau, 2005). Second, we find award-winning managers in international funds (fixed income) to be associated with negative performance up to 60 months (36 months) following the announcement of the FMOY award. Third, superstar managers in international funds do engage in reducing risk-taking activities up to 60 months following receiving the award. We observe similar findings for superstars in fixed income funds but such effects lasted up to six months only. The results are unreported for the sake of brevity but are available upon request.

## **VI. Conclusion**

This paper examines the effect of shock on fund manager status due to receiving the FMOY award and its subsequent effect on a fund's money flows, performance, and risk-taking activities. We identify a sample of fund managers who won the FMOY award in the domestic stock category from 1995 to 2012. We find award-winning managers to be associated with positive money flows up to six months following receiving the FMOY award and that such effects disappear post six months. We also find similar findings using an abnormal fund flows measure following the methodology of Del Guercio and Tkac (2008) and Cooper, Gulen, and Rau (2005). Next, we examine whether superstar fund managers are able to maintain their fund performance following receiving the FMOY award. Interestingly, we find award-winning managers to underperform by 3.08% in the 12 months following the announcement of the FMOY award. Our further tests show that such findings are attributed to diseconomies of scale, as superstar fund managers will need to cope with an influx of money flows to its own funds and other funds in the fund family due to greater publicity. Finally, we find that award-winning managers decrease their fund volatility in their apparent bid to lock-in their relative advantage.



We identify several further questions to be explored in later research. First: What is the effect of the FMOY award for first-time winners versus repeated winners? Second: What is the effect of winning the FMOY award for fund managers in individually versus team-managed funds? Third: What is the implication for winning managers? In other words, does winning the FMOY award result in promotion to larger funds? Fourth: Are there any spillover effects from having an award-winning manager in mutual fund families?

## Appendix

### List of Winners under the categories of Fixed Income and International Stocks.

Fixed Income Award		
<u>Year</u>	<u>Manager Name</u>	<u>Fund Name</u>
1995	Daniel Fuss	Loomis Sayles Bond
1996	Joe Deane	Smith Barney Managed Municipals, Smith Barney California Municipals
1997	David Beldt	Morgan Grenfell Fixed-Income, Morgan Grenfell Municipal Bond
1998	William Gross	PIMCO Total Return, PIMCO Low Duration
1999	William Gross	PIMCO Total Return, PIMCO Low Duration
2000	William Gross	PIMCO Total Return
2001	Robert L. Rodriguez	FPA New Income
2002	Team	Dodge and Cox Income
2003	Team	Fidelity Spartan Municipal Income
2004	Ken Leech	Western Asset Core Bond
2005	David Lippman, Laird Landmann, Stephen Kane, Tad Rivelle	Metropolitan West Total Return Bond
2006	Jeffrey Gundlach, Philip Barach	TCW Galileo Total Return Bond
2007	William Gross	PIMCO Total Return, Harbor Fund
2008	Bob Rodriguez, Thomas H. Atteberry	FPA New Income
2009	Daniel Fuss, Elaine Stokes, Kathleen Gaffney, Matthew Eagan	Loomis Sayles Bond
2010	Michael Hasenstab	Templeton Global Bond
2011	John Carlson	Fidelity New Markets Income
2012	Mark Kiesel	PIMCO Investment Grade Corporate Bond
International Stock Award		
<u>Year</u>	<u>Manager Name</u>	<u>Fund Name</u>
1995	Jack Mussey	Colonial Newport Tiger
1996	Hakan Castegren	Harbor International, Ivy International
1997	Helen Young Hayes	Janus Overseas, Janus Worldwide
1998	Mark Yockey	Artisan International Fund
1999	Alwyn Heong, Janet McKinley, Mark Denning, Martial Chaillet, Robert Lovelace, Stephen Bepler, Thierry Vandeventer	Europacific Growth
2000	Christopher Browne, John Spears, William Browne	Tweedy Browne Global Value Fund
2001	Charles de Vault, Jean-Marie Eveillard	First Eagle SoGen Global
2002	Richard Pell, Rudolph-Riad Younes	Julius Baer International Equity
2003	Bill Fries	Thornburg International Value
2004	Bryan C. Cameron, Diana S. Strandberg, Gregory R. Serrurier, Jacob M. Gofman, John A. Gunn, Kouji Yamada, Mario C. DiPrisco	Dodge and Cox International Stock
2005	Jerrold Senser, Matthew Pickering, Robert Lyon	ICAP International

2006	David Herro	Oakmark International, Oakmark International Small Cap
2006	Jeffrey Gundlach	TCW Galileo Total Return Bond
2007	Hakan Castegren	Harbor International
2008	Daniel O'Keefe, David Samra	Artisan International Value Investor
2009	Team	American Funds EuroPacific Growth
2010	Brent Lynn	Janus Overseas
2011	Bob Wyckoff, John Spears, Tom Shrager, William Browne	Tweedy Browne Global Value Fund
2012	Rajiv Jain	Virtus Foreign Opportunities A, Virtus Emerging Markets Opportunities

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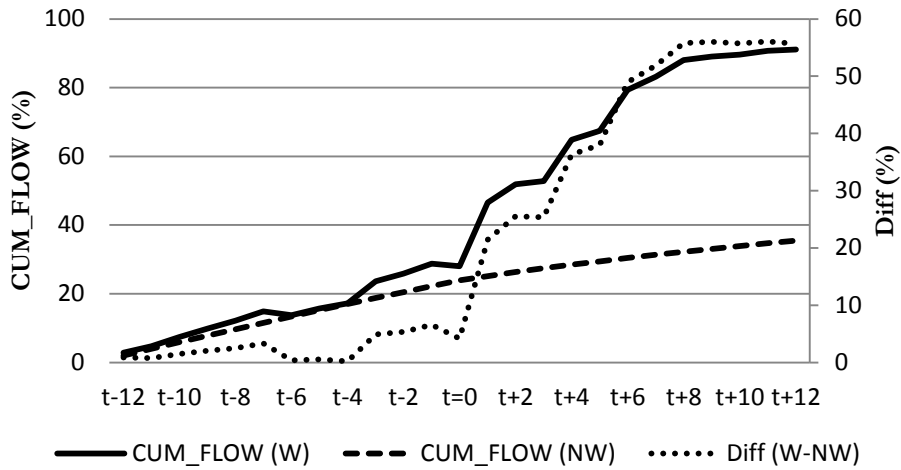
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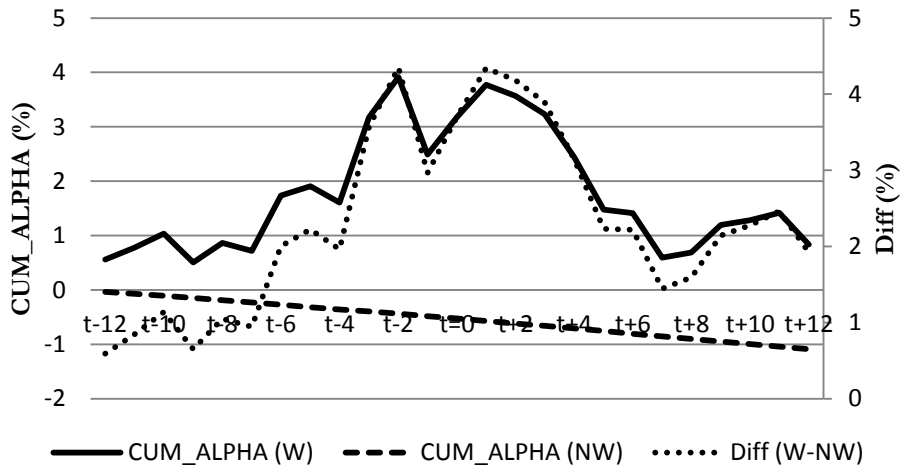
### Figure 1: Money Flows and Fund Performance for Winners versus Non-Winners

Figure 1 provides the trend of money flows (Chart A) and fund alpha (Chart B) for award-winning managers versus the rest of the managers in our sample during the pre- and post-12 months from the announcement of the FMOY award.

#### A. Fund Flow



#### B. Fund Alpha



**Table 1: List of FMOY Award Winners**

Table 1 provides information on the award-winning managers under the category of “Domestic Stock” and the associated funds they worked for every year from 1995 to 2012. The announcement of the FMOY award is made in the month of January every year.

Domestic Stock Award		
<u>Year</u>	<u>Manager Name</u>	<u>Fund Name</u>
1995	Jack Laporte	T. Rowe Price New Horizons
1996	Shelby Davis	Davis New York Venture, Selected American Shares
1997	Mario Gabelli	Gabelli Asset Fund
1998	Bill Miller	Legg Mason Value Trust, Legg Mason Special Investment Trust
1999	Jim Callinan	RS Emerging Growth
2000	Bruce Veaco, Doug Grey, Jim Gipson, Michael Sandler, Peter Quinn	Clipper Fund
2001	Bill Nygren	Oakmark Select I
2002	Joel Tillinghast	Fidelity Low Priced Stock
2003	Howard Schow, Joel Fried, Theo Kolokotronis	Vanguard Primecap, Vanguard Capital Opportunity
2004	Brian Berghuis	T. Rowe Price Mid-Cap Growth
2005	Christopher Davis, Ken Charles Feinberg	Selected American Shares
2006	Mason Hawkins, Staley Cates	Longleaf Partners Fund, Longleaf Partners Small Cap
2007	Will Danoff	Fidelity Contrafund, Fidelity Advisor New Insights
2008	Charlie Dreifus	Royce Special Equity
2009	Bruce Berkowitz	Fairholme Fund
2010	Bob Goldfarb, David Poppe	Sequoia Fund
2011	George Sertl, James Kieffer, Scott Satterwhite	Artisan Mid Cap Value, Artisan Small Cap Value, Artisan Value
2012	Bill Frels, Mark Henneman	Mairs & Power Growth Inv



**Table 2: Characteristics of Winner Funds Relative to the Universe of Mutual Funds**

Table 2 displays summary statistics for manager-fund-month observations of U.S. domestic equity mutual funds. Panel A reports statistics for award-winning managers and Panel B reports statistics for non-award-winning managers. In Panel C, a difference in means test is performed between award-winning and non-award-winning managers. The variable *Fund Size* is the AUM of the fund in millions of dollars; *Fund Age* is the age of the fund in years, calculated as the difference between a particular date and the date the fund first appeared in the CRSP mutual fund database; *Family Size* is the combined AUM of all funds within a particular mutual fund family in millions of dollars; *Expense Ratio* is the percentage of fund assets charged by the fund on an annual basis to compensate for operating costs and includes management and 12b-1 fees; *Distribution Fee* is the cost paid by the fund for marketing and distribution and is presented as a percentage of fund assets; *Turnover Ratio* measures the percentage of fund assets that are renewed and is calculated as the minimum of sales and purchases divided by the average yearly fund size; *Volatility* is measured by the standard deviation of a fund's net returns over the past 12 months; *Fund Flow* is the measure of inflow and outflow of assets, following Sirri and Tufano (1998); *Fund Return* is a fund's monthly return net of operating expenses; *Fund Alpha* is conditional fund alpha using the Carhart four-factor model and predetermined instruments as proposed by Ferson and Schadt (1996); *Team Size* is the number of managers managing the funds; *Manager Age* is the natural logarithm of the average fund manager's age in a fund; *Manager Tenure* is the natural logarithm of the average fund manager's tenure in a fund; and *Manager Experience* is the natural logarithm of the average fund manager's experience in the asset management industry. The superscripts \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Winner				
<u>Variables</u>	<u>Mean</u>	<u>Std.</u>	<u>Min</u>	<u>Max</u>
Fund Size (\$million)	192.693	264.662	15.030	964.546
Fund Age (years)	14.664	7.426	4.500	33.000
Family Size (\$million)	15,926.86	23,011.17	37.00	86,390.85
Expense Ratio (%)	0.917	0.368	0.198	1.796
Distribution Fee (%)	0.192	0.291	0.000	0.896
Turnover Ratio (%)	35.432	32.334	3.000	157.000
Volatility (%)	4.212	1.566	1.773	7.933
Fund Flow (%)	-0.761	13.775	-42.398	21.874
Fund Return (%)	3.135	4.572	-9.510	9.157
Fund Alpha (%)	0.007	0.028	-0.036	0.060
Team Size	2.647	1.535	1.000	6.000
Manager Age	48.941	12.341	23.000	76.000
Manager Tenure	10.424	5.580	3.500	27.917
Manager Experience	15.184	6.577	4.667	28.667

Panel B: Non-Winner				
<u>Variables</u>	<u>Mean</u>	<u>Std.</u>	<u>Min</u>	<u>Max</u>
Fund Size (\$million)	322.386	372.534	15.000	1,735.661
Fund Age (years)	10.406	8.332	0.000	85.750
Family Size (\$million)	17,854.69	21,584.17	15.00	108,749.10
Expense Ratio (%)	1.203	0.424	0.050	2.662
Distribution Fee (%)	0.255	0.246	0.000	0.968
Turnover Ratio (%)	83.529	72.523	1.000	564.000
Volatility (%)	4.458	1.907	0.000	18.220
Fund Flow (%)	1.676	14.337	-42.398	111.681
Fund Return (%)	0.737	4.925	-13.590	12.177
Fund Alpha (%)	0.000	0.027	-0.152	0.142
Team Size	4.773	5.304	1.000	32.000
Manager Age	43.613	10.393	10.000	134.917
Manager Tenure	4.506	4.685	0.000	77.083
Manager Experience	8.931	8.376	0.000	77.083

Panel C: Differences in Winner and Non-Winner Samples				
<u>Variables</u>	<u>Winner</u>	<u>Non-Winner</u>	<u>Difference</u>	
Fund Size (\$million)	192.693	322.386	-129.694	**
Fund Age (years)	14.664	10.406	4.258	***
Family Size (\$million)	15,926.86	17,854.69	-1,927.83	
Expense Ratio (%)	0.917	1.203	-0.286	***
Distribution Fee (%)	0.192	0.255	-0.063	
Turnover Ratio (%)	35.432	83.529	-48.097	***
Volatility (%)	4.212	4.458	-0.246	
Fund Flow (%)	-0.761	1.676	-2.437	
Fund Return (%)	3.135	0.737	2.398	***
Fund Alpha (%)	0.007	0.000	0.007	
Team Size	2.647	4.773	-2.126	**
Manager Age	48.941	43.613	5.328	***
Manager Tenure	10.424	4.506	5.918	***
Manager Experience	15.184	8.931	6.253	***

**Table 3: Correlation Matrix**

Table 3 displays the correlation between continuous independent variables:  $\text{Log}(\text{Fund Size})$  is the natural logarithm of the fund's AUM in millions of dollars;  $\text{Log}(\text{Fund Age})$  is the natural logarithm of the fund's age in years, where age is calculated as the difference between the data date and the date that the fund first appeared in the Morningstar Direct database;  $\text{Log}(\text{Family Size})$  is the natural logarithm of the combined AUM of all funds managed by a fund family in millions of dollars;  $\text{Expense Ratio}$  is the percentage of fund assets charged by the fund on an annual basis to compensate for operating costs and includes management and 12b-1 fees;  $\text{Turnover Ratio}$  measures the percentage of fund assets that are renewed and is calculated as the minimum of sales and purchases divided by the average yearly fund size;  $\text{Volatility}$  is measured by the standard deviation of a fund's net returns over the past 12 months;  $\text{Fund Flow}$  is the measure of inflow and outflow of assets, following Sirri and Tufano (1998);  $\text{Fund Alpha}$  is conditional fund alpha using the Carhart four-factor model and predetermined instruments as proposed by Ferson and Schadt (1996);  $\text{Team Size}$  is the number of managers managing the funds;  $\text{Log}(\text{Manager Age})$  is the natural logarithm of the average fund manager's age in a fund;  $\text{Log}(\text{Manager Tenure})$  is the natural logarithm of the average fund manager's tenure in a fund; and  $\text{Log}(\text{Manager Experience})$  is the natural logarithm of the average fund manager's experience in the asset management industry.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) Log(Fund Size)	1.000											
(2) Log(Fund Age)	0.291	1.000										
(3) Log(Family Size)	0.406	0.099	1.000									
(4) Expense Ratio	-0.027	-0.057	-0.115	1.000								
(5) Turnover Ratio	-0.088	-0.102	-0.002	0.198	1.000							
(6) Volatility	-0.012	0.025	-0.001	0.064	0.144	1.000						
(7) Fund Flow	0.021	-0.147	-0.002	-0.014	0.022	-0.010	1.000					
(8) Fund Alpha	-0.011	0.012	0.000	-0.001	0.010	0.005	-0.006	1.000				
(9) Team Size	0.008	-0.013	0.089	-0.139	0.024	-0.040	-0.011	0.003	1.000			
(10) Log(Manager Age)	-0.009	0.078	-0.082	-0.030	-0.087	-0.012	-0.019	-0.002	-0.001	1.000		
(11) Log(Manager Tenure)	0.103	0.414	-0.076	-0.045	-0.148	0.043	-0.073	-0.003	-0.104	0.316	1.000	
(12) Log(Manager Experience)	0.059	0.203	0.039	-0.051	-0.097	0.025	-0.033	0.001	0.015	0.490	0.567	1.000

**Table 4: Effect of Fund Managers' Status on Fund Flows**

Table 4 provides the OLS regression results of the effect of winning the FMOY award on a fund's future money flows. The dependent variable is *Fund Flow*, which measures the percentage growth of a fund that is due to new investments over the  $t + k1$  to  $t + k2$  period. The independent variables include the following: *Winner* is a binary indicator equals to one if the manager wins the FMOY award;  $\text{Log}(\text{Fund Size})$  is the natural logarithm of the fund's AUM in millions of dollars;  $\text{Log}(\text{Fund Age})$  is the natural logarithm of the fund's age in years;  $\text{Log}(\text{Family Size})$  is the natural logarithm of the combined AUM of all funds managed by a fund family in millions of dollars; *Expense Ratio* is the percentage of fund assets charged by the fund on an annual basis to compensate for operating costs and includes management and 12b-1 fees; *Distribution Fee* is the cost paid by the fund for marketing and distribution and is presented as a percentage of fund assets; *Turnover Ratio* measures the percentage of fund assets that are renewed and is calculated as the minimum of sales and purchases divided by the average yearly fund size; *Volatility* is measured by the standard deviation of a fund's net returns over the past 12 months; *Category Flow* is the aggregate flow into each fund category at time  $t$ ;  $\text{Low}_{i,t-1}$  represents the performance rank in the lowest quintile and is measured as  $\min(\text{Rank}_t, 0.2)$ ;  $\text{Mid}_{i,t-1}$  represents the performance rank in quintiles 2 to 4 and is measured as  $\min(\text{Rank}_t - \text{Low}, 0.6)$ ;  $\text{High}_{i,t-1}$  represents the performance rank in the highest quintile and is measured as  $\min(\text{Rank}_t - \text{Low} - \text{Mid}, 0.2)$ ; *Team Size* is the number of managers managing the funds;  $\text{Log}(\text{Manager Age})$  is the natural logarithm of the average fund manager's age in a fund;  $\text{Log}(\text{Manager Tenure})$  is the natural logarithm of the average fund manager's tenure in a fund; and  $\text{Log}(\text{Manager Experience})$  is the natural logarithm of the average fund manager's experience in the asset management industry. Time, fund, and manager fixed effects are included in each regression and standard errors are clustered at the fund level and reported in parentheses. The superscripts \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

Fund Flow (t+k1 to t+k2)	3 months	6 months	9 months	12 months
Variables	(1)	(2)	(3)	(4)
Winner	0.081** (0.039)	0.118** (0.058)	0.104 (0.067)	0.086 (0.089)
Log(Fund Size)	-0.086*** (0.003)	-0.151*** (0.004)	-0.212*** (0.006)	-0.267*** (0.008)
Log(Fund Age)	-0.066*** (0.005)	-0.112*** (0.009)	-0.139*** (0.012)	-0.159*** (0.016)
Log(Family Size)	0.029*** (0.004)	0.045*** (0.008)	0.054*** (0.011)	0.054*** (0.014)
Expense Ratio	-0.019* (0.010)	-0.021 (0.018)	-0.017 (0.026)	-0.022 (0.032)
Turnover Ratio	-0.000 (0.003)	0.003 (0.005)	0.006 (0.008)	0.012 (0.010)
Distribution Fee	0.038*** (0.013)	0.017 (0.024)	-0.020 (0.033)	-0.055 (0.041)
Volatility	-0.535*** (0.076)	-0.906*** (0.142)	-1.017*** (0.203)	-0.952*** (0.255)
Category Flow	1.782*** (0.307)	1.921*** (0.478)	2.502*** (0.638)	2.348*** (0.793)
Low	0.006 (0.011)	0.002 (0.016)	0.025 (0.021)	0.026 (0.025)
Medium	-0.002 (0.002)	-0.001 (0.003)	0.002 (0.004)	0.005 (0.004)
High	0.030*** (0.010)	0.073*** (0.015)	0.105*** (0.020)	0.118*** (0.023)
Team Size	0.001* (0.000)	0.001 (0.001)	0.002 (0.001)	0.003** (0.002)

Log(Manager Age)	-0.199*** (0.074)	-0.376*** (0.138)	-0.436** (0.203)	-0.611** (0.268)
Log(Manager Tenure)	-0.000 (0.002)	0.000 (0.004)	-0.000 (0.005)	-0.000 (0.007)
Log(Manager Experience)	0.008** (0.003)	0.014** (0.006)	0.020** (0.009)	0.025** (0.011)
Intercept	1.947*** (0.293)	3.432*** (0.496)	4.636*** (0.731)	6.334*** (0.958)
Observations	343,337	323,169	303,381	284,274
Adjusted R <sup>2</sup>	0.199	0.313	0.393	0.454
Time Fixed Effects	Yes	Yes	Yes	Yes
Fund Fixed Effects	Yes	Yes	Yes	Yes
Manager Fixed Effects	Yes	Yes	Yes	Yes

**Table 5: Effect of Fund Managers' Status on Fund Performance**

Table 5 provides the OLS regression results of the effect of winning the FMOY award on a fund's future risk-adjusted performance. The dependent variable is *Fund Alpha*, which is compounded monthly fund alpha over the  $t + k1$  to  $t + k2$  period. The independent variables include the following: *Winner* is a binary indicator equals to one if the manager wins the FMOY award;  $\text{Log}(\text{Fund Size})$  is the natural logarithm of the fund's AUM in millions of dollars;  $\text{Log}(\text{Fund Age})$  is the natural logarithm of the fund's age in years;  $\text{Log}(\text{Family Size})$  is the natural logarithm of the combined AUM of all funds managed by a fund family in millions of dollars; *Expense Ratio* is the percentage of fund assets charged by the fund on an annual basis to compensate for operating costs and includes management and 12b-1 fees; *Turnover Ratio* measures the percentage of fund assets that are renewed and is calculated as the minimum of sales and purchases divided by the average yearly fund size; *Volatility* is measured by the standard deviation of a fund's net returns over the past 12 months; *Fund Flow* is the measure of inflow and outflow of assets, following Sirri and Tufano (1998); *Team Size* is the number of managers managing the funds;  $\text{Log}(\text{Manager Age})$  is the natural logarithm of the average fund manager's age in a fund;  $\text{Log}(\text{Manager Tenure})$  is the natural logarithm of the average fund manager's tenure in a fund; and  $\text{Log}(\text{Manager Experience})$  is the natural logarithm of the average fund manager's experience in the asset management industry. Time, fund, and manager fixed effects are included in each regression and standard errors are clustered at the fund level and reported in parentheses. The superscripts \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

Fund Alpha (t+k1 to t+k2)	3 months	6 months	9 months	12 months
Variables	(1)	(2)	(3)	(4)
Winner	0.410 (0.678)	-1.961* (1.028)	-2.299* (1.236)	-3.079** (1.267)
Log(Fund Size)	-0.254*** (0.024)	-0.432*** (0.045)	-0.551*** (0.062)	-0.621*** (0.078)
Log(Fund Age)	0.608*** (0.076)	1.136*** (0.138)	1.462*** (0.189)	1.707*** (0.229)
Log(Family Size)	-0.334*** (0.050)	-0.507*** (0.090)	-0.535*** (0.124)	-0.508*** (0.153)
Expense Ratio	-0.068 (0.096)	0.203 (-0.177)	0.594** (0.251)	0.975*** (0.318)
Turnover Ratio	0.227*** (0.054)	0.493*** (0.102)	0.780*** (0.150)	1.042*** (0.190)
Volatility	-0.045*** (0.015)	-0.027 (0.028)	-0.106*** (0.037)	-0.298*** (0.044)
Fund Flow	-0.427*** (0.074)	-0.757*** (0.113)	-1.170*** (0.143)	-1.722*** (0.167)
Fund Alpha	-0.054*** (0.005)	-0.068*** (0.007)	-0.105*** (0.007)	-0.100*** (0.009)
Team Size	-0.003 (0.004)	-0.017** (0.008)	-0.028*** (0.011)	-0.033** (0.013)
Log(Manager Age)	-3.810*** (0.850)	0.138 (1.536)	-1.596 (2.231)	-3.248 (2.901)
Log(Manager Tenure)	-0.103*** (0.028)	-0.169*** (0.053)	-0.245*** (0.075)	-0.367*** (0.095)
Log(Manager Experience)	0.080 (0.050)	0.139 (0.092)	0.178 (0.129)	0.256 (0.162)
Intercept	24.188*** (3.117)	16.006*** (5.592)	23.648*** (8.071)	29.147*** (10.435)
Observations	488,316	472,123	455,525	438,789

Adjusted R <sup>2</sup>	0.0646	0.129	0.183	0.231
Time Fixed Effects	Yes	Yes	Yes	Yes
Fund Fixed Effects	Yes	Yes	Yes	Yes
Manager Fixed Effects	Yes	Yes	Yes	Yes

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**Table 6: Effect of Fund Managers' Status on Fund Performance (Diseconomies of Scale)**

Table 6 provides the OLS regression results of the effect of winning the FMOY award on a fund's future risk-adjusted performance. The dependent variable is *Fund Alpha*, which is compounded monthly fund alpha over the  $t + k1$  to  $t + k2$  period. The independent variables include the following: *Winner* is a binary indicator equals to one if the manager wins the FMOY award;  $\text{Log}(\text{Fund Size})$  is the natural logarithm of the fund's AUM in millions of dollars;  $\text{Log}(\text{Fund Age})$  is the natural logarithm of the fund's age in years;  $\text{Log}(\text{Family Size})$  is the natural logarithm of the combined AUM of all funds managed by a fund family in millions of dollars; *Expense Ratio* is the percentage of fund assets charged by the fund on an annual basis to compensate for operating costs and includes management and 12b-1 fees; *Turnover Ratio* measures the percentage of fund assets that are renewed and is calculated as the minimum of sales and purchases divided by the average yearly fund size; *Volatility* is measured by the standard deviation of a fund's net returns over the past 12 months; *Fund Flow* is the measure of inflow and outflow of assets, following Sirri and Tufano (1998); *Team Size* is the number of managers managing the funds;  $\text{Log}(\text{Manager Age})$  is the natural logarithm of the average fund manager's age in a fund;  $\text{Log}(\text{Manager Tenure})$  is the natural logarithm of the average fund manager's tenure in a fund; and  $\text{Log}(\text{Manager Experience})$  is the natural logarithm of the average fund manager's experience in the asset management industry. Time, fund, and manager fixed effects are included in each regression and standard errors are clustered at the fund level and reported in parentheses. The superscripts \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

Fund Alpha (t+k1 to t+k2)	12 months	12 months	12 months	12 months
Variables	(1)	(2)	(3)	(4)
Winner	-3.079** (1.267)	-5.803 (20.796)	22.860* (12.236)	4.472 (21.513)
Winner * Log(Fund Size)		0.147 (1.120)		1.434 (1.029)
Winner * Log(Family Size)			-1.205** (0.558)	-1.582*** (0.456)
Log(Fund Size)	-0.621*** (0.078)	-0.621*** (0.078)	-0.621*** (0.078)	-0.621*** (0.078)
Log(Fund Age)	1.707*** (0.229)	1.707*** (0.229)	1.707*** (0.229)	1.706*** (0.229)
Log(Family Size)	-0.508*** (0.153)	-0.508*** (0.153)	-0.507*** (0.153)	-0.507*** (0.153)
Expense Ratio	0.975*** (0.318)	0.975*** (0.318)	0.974*** (0.318)	0.974*** (0.318)
Turnover Ratio	1.042*** (0.190)	1.042*** (0.190)	1.042*** (0.190)	1.041*** (0.190)
Volatility	-0.298*** (0.044)	-0.298*** (0.044)	-0.298*** (0.044)	-0.298*** (0.044)
Fund Flow	-1.722*** (0.167)	-1.722*** (0.167)	-1.723*** (0.167)	-1.723*** (0.167)
Fund Alpha	-0.100*** (0.009)	-0.100*** (0.009)	-0.100*** (0.009)	-0.100*** (0.009)
Team Size	-0.033** (0.013)	-0.033** (0.013)	-0.033** (0.013)	-0.033** (0.013)
Log(Manager Age)	-3.248 (2.901)	-3.248 (2.901)	-3.245 (2.901)	-3.245 (2.901)
Log(Manager Tenure)	-0.367*** (0.095)	-0.367*** (0.095)	-0.367*** (0.095)	-0.367*** (0.095)
Log(Manager Experience)	0.256	0.256	0.256	0.256



	(0.162)	(0.162)	(0.162)	(0.162)
Intercept	29.147***	29.148***	29.126***	29.128***
	(10.435)	(10.435)	(10.435)	(10.435)
Observations	438,789	438,789	438,789	438,789
Adjusted R <sup>2</sup>	0.231	0.231	0.231	0.231
Time Fixed Effects	Yes	Yes	Yes	Yes
Fund Fixed Effects	Yes	Yes	Yes	Yes
Manager Fixed Effects	Yes	Yes	Yes	Yes

**Table 7: Effect of Fund Managers' Status on Fund Fees**

Table 7 provides the OLS regression results of the effect of winning the FMOY award on the future level of fund fees. In models (1) to (4), the dependent variable is *Non-12b-1 Fee* which is calculated by subtracting the 12b-1 fee from the expense ratio following Barber, Odean, and Zheng (2005). In models (5) to (8), the dependent variable is *12b-1 Fee* which is the cost paid by the fund for marketing and distribution. The independent variables include the following: *Winner* is a binary indicator equals to one if the manager wins the FMOY award; *Log(Fund Size)* is the natural logarithm of the fund's AUM in millions of dollars; *Log(Fund Age)* is the natural logarithm of the fund's age in years; *Log(Family Size)* is the natural logarithm of the combined AUM of all funds managed by a fund family in millions of dollars; *Turnover Ratio* measures the percentage of fund assets that are renewed and is calculated as the minimum of sales and purchases divided by the average yearly fund size; *Volatility* is measured by the standard deviation of a fund's net returns over the past 12 months; *Fund Flow* is the measure of inflow and outflow of assets, following Sirri and Tufano (1998); *Team Size* is the number of managers managing the funds; *Log(Manager Age)* is the natural logarithm of the average fund manager's age in a fund; *Log(Manager Tenure)* is the natural logarithm of the average fund manager's tenure in a fund; and *Log(Manager Experience)* is the natural logarithm of the average fund manager's experience in the asset management industry. Time, fund, and manager fixed effects are included in each regression and standard errors are clustered at the fund level and reported in parentheses. The superscripts \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

Fund Fees	3 months	6 months	9 months	12 months	3 months	6 months	9 months	12 months
Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	<u>Non-12b-1 Fee</u>				<u>12b-1 Fee</u>			
Winner	-0.023 (0.014)	-0.024** (0.012)	-0.020* (0.012)	-0.016 (0.021)	0.017 (0.017)	0.010 (0.018)	0.011 (0.017)	-0.060 (0.040)
Log(Fund Size)	-0.063*** (0.003)	-0.054*** (0.003)	-0.045*** (0.003)	-0.036*** (0.003)	-0.011*** (0.002)	-0.006*** (0.002)	-0.003 (0.002)	-0.000 (0.002)
Log(Fund Age)	-0.116*** (0.009)	-0.077*** (0.008)	-0.048*** (0.008)	-0.030*** (0.007)	0.001 (0.005)	-0.001 (0.005)	-0.005 (0.006)	-0.006 (0.006)
Log(Family Size)	-0.073*** (0.014)	-0.062*** (0.013)	-0.051*** (0.013)	-0.040*** (0.013)	0.023*** (0.004)	0.022*** (0.004)	0.020*** (0.004)	0.019*** (0.004)
Turnover Ratio	0.009* (0.005)	0.009** (0.004)	0.009* (0.005)	0.006 (0.006)	0.004* (0.002)	0.003 (0.002)	0.002 (0.002)	0.002 (0.003)
Volatility	0.005*** (0.001)	0.004*** (0.001)	0.002** (0.001)	0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.000 (0.001)	-0.000 (0.001)
Fund Flow	0.059*** (0.005)	0.032*** (0.004)	0.007** (0.004)	-0.010*** (0.003)	-0.021*** (0.003)	-0.016*** (0.003)	-0.010*** (0.002)	-0.005** (0.002)
Fund Alpha	0.005 (0.007)	-0.033*** (0.007)	-0.005 (0.008)	0.003 (0.007)	0.004 (0.003)	-0.004 (0.003)	-0.004 (0.003)	-0.009*** (0.003)

Team Size	0.002*** (0.001)	0.001** (0.001)	0.001 (0.001)	0.000 (0.001)	0.001** (0.000)	0.001** (0.000)	0.001** (0.000)	0.001** (0.000)
Log(Manager Age)	-0.004 (0.118)	-0.138 (0.111)	-0.089 (0.109)	0.042 (0.113)	-0.099 (0.100)	-0.060 (0.104)	-0.060 (0.108)	-0.053 (0.112)
Log(Manager Tenure)	0.001 (0.002)	0.000 (0.002)	0.002 (0.002)	0.004* (0.002)	-0.004* (0.002)	-0.004 (0.002)	-0.004 (0.002)	-0.004* (0.003)
Log(Manager Experience)	-0.007 (0.005)	-0.005 (0.004)	-0.005 (0.004)	-0.007 (0.004)	0.002 (0.004)	0.001 (0.004)	0.000 (0.004)	-0.000 (0.004)
Intercept	3.972*** (0.523)	4.005*** (0.493)	3.406*** (0.491)	2.539*** (0.502)	0.248 (0.363)	0.058 (0.377)	0.030 (0.392)	-0.010 (0.404)
Observations	341,921	322,261	303,418	285,375	343,347	323,570	304,628	286,496
Adjusted R <sup>2</sup>	0.824	0.844	0.855	0.859	0.834	0.833	0.832	0.831
Time Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fund Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Manager Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

**Table 8: Effect of Fund Managers' Status on Risk-Taking Activities**

Table 8 provides the OLS regression results of the effect of winning the FMOY award on a fund's future risk-taking activities. The dependent variable is *Risk Taking* which is measured as standard deviation over the  $t + k1$  to  $t + k2$  period. The independent variables include the following: *Winner* is a binary indicator equals to one if the manager wins the FMOY award;  $\text{Log}(\text{Fund Size})$  is the natural logarithm of the fund's AUM in millions of dollars;  $\text{Log}(\text{Fund Age})$  is the natural logarithm of the fund's age in years;  $\text{Log}(\text{Family Size})$  is the natural logarithm of the combined AUM of all funds managed by a fund family in millions of dollars; *Expense Ratio* is the percentage of fund assets charged by the fund on an annual basis to compensate for operating costs and includes management and 12b-1 fees; *Turnover Ratio* measures the percentage of fund assets that are renewed and is calculated as the minimum of sales and purchases divided by the average yearly fund size; *Volatility* is measured by the standard deviation of a fund's net returns over the past 12 months; *Fund Flow* is the measure of inflow and outflow of assets, following Sirri and Tufano (1998); *Team Size* is the number of managers managing the funds;  $\text{Log}(\text{Manager Age})$  is the natural logarithm of the average fund manager's age in a fund;  $\text{Log}(\text{Manager Tenure})$  is the natural logarithm of the average fund manager's tenure in a fund; and  $\text{Log}(\text{Manager Experience})$  is the natural logarithm of the average fund manager's experience in the asset management industry. Time, fund, and manager fixed effects are included in each regression and standard errors are clustered at the fund level and reported in parentheses. The superscripts \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

Risk Taking (t+k1 to t+k2)	3 months	6 months	9 months	12 months
Variables	(1)	(2)	(3)	(4)
Winner	-0.284 (0.181)	-0.290* (0.161)	-0.398** (0.169)	-0.260* (0.155)
Log(Fund Size)	-0.075*** (0.008)	-0.062*** (0.008)	-0.048*** (0.008)	-0.039*** (0.008)
Log(Fund Age)	-1.326*** (0.035)	-1.353*** (0.035)	-1.243*** (0.032)	-1.095*** (0.029)
Log(Family Size)	-0.083*** (0.020)	-0.039** (0.019)	-0.002 (0.017)	0.015 (0.016)
Expense Ratio	-0.093** (0.042)	-0.075* (0.041)	-0.065* (0.039)	-0.060 (0.038)
Turnover Ratio	0.066*** (0.019)	0.046** (0.018)	0.038** (0.017)	0.035** (0.016)
Volatility	0.078*** (0.005)	0.040*** (0.005)	0.014*** (0.004)	0.005 (0.004)
Fund Flow	0.254*** (0.027)	0.248*** (0.021)	0.228*** (0.018)	0.196*** (0.017)
Fund Alpha	-0.001 (0.002)	-0.001 (0.001)	-0.001 (0.001)	-0.002*** (0.001)
Team Size	-0.012*** (0.003)	-0.015*** (0.003)	-0.018*** (0.002)	-0.019*** (0.002)
Log(Manager Age)	4.229*** (0.607)	3.055*** (0.586)	1.128** (0.511)	0.294 (0.469)
Log(Manager Tenure)	-0.057*** (0.011)	-0.063*** (0.011)	-0.062*** (0.011)	-0.055*** (0.010)
Log(Manager Experience)	0.016 (0.022)	0.026 (0.022)	0.029 (0.020)	0.021 (0.019)
Intercept	-8.936*** (2.131)	-5.832*** (2.059)	-0.165 (1.800)	2.143 (1.657)
Observations	486,024	486,032	486,032	486,032

Adjusted R <sup>2</sup>	0.414	0.587	0.668	0.712
Time Fixed Effects	Yes	Yes	Yes	Yes
Fund Fixed Effects	Yes	Yes	Yes	Yes
Manager Fixed Effects	Yes	Yes	Yes	Yes

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**Table 9: Abnormal Fund Flows Following Del Guercio and Tkac (2008)**

Table 9 reports our abnormal flows measure following the methodology of Del Guercio and Tkac (2008). To develop a model of expected flow, we include aggregate net flow to all funds in the same investment category, fund monthly returns, change in a fund's Carhart four-factor conditional alpha, and net dollar flow. The abnormal flow is equal to the actual flow minus the expected flow derived from the above-mentioned model. We focus on the standardized abnormal flow (SAF) measure, which is calculated by dividing abnormal flow by the estimated forecast variance of the abnormal flow. CUM\_SAF is the cumulative standardize abnormal flow from event time 0 to  $t$ . The superscripts \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

	Winner		Non-Winner		
	CUM_SAF	t-Stat	CUM_SAF	t-Stat	
t=0	0.412	1.346	-0.036	-13.956	***
t+1	2.014	3.616	-0.063	-19.524	***
t+2	2.138	3.245	-0.083	-23.197	***
t+3	2.267	3.502	-0.101	-25.846	***
t+4	2.659	3.592	-0.116	-27.880	***
t+5	2.691	3.535	-0.129	-29.306	***
t+6	2.914	3.471	-0.142	-30.801	***
t+7	3.022	3.672	-0.153	-32.001	***
t+8	3.111	3.753	-0.166	-33.390	***
t+9	3.166	3.864	-0.178	-34.648	***
t+10	3.175	3.845	-0.188	-35.309	***
t+11	3.273	3.932	-0.197	-35.914	***
t+12	3.086	3.627	-0.206	-36.631	***

**Table 10: Abnormal Fund Flows Following Cooper, Gulen, and Rau (2005)**

Table 10 reports our matched sample of Winner and Non-Winner following the methodology of Cooper, Gulen, and Rau (2005) to compute abnormal flows using a propensity score matching algorithm. Panel A reports the mean values and difference in means tests for a one-to-one matched sample of Winner (treatment) and Non-Winner (control) groups based on fund characteristics. We use the following independent variables: *Log(Fund Size)* is the one month lagged log of total net assets under management; *Portfolio Net Return* is the geometric return of the funds in the past 12 months prior to the award announcement month; *Average Flow* is the average fund flow in the past 12 months prior to the award announcement month; *Volatility* is measured by the standard deviation of a fund's net returns in the past 12 months prior to the award announcement month; *Expense Ratio* is the percentage of fund assets charged by the fund on an annual basis to compensate for operating costs; *Fund Alpha* is the Carhart four-factor alpha conditional on instruments as proposed by Ferson and Schadt (1996) and this measure is calculated over the 24 months before the award announcement month, and *Log(Fund Age)* is the log of the age of the fund in months. Panel B reports the fund flow and abnormal fund flows of Winner and Non-Winner in the 12 months following the announcement of the FMOY award. Panel C reports the cumulative abnormal fund flows in the 12 months following the announcement of the FMOY award. The superscripts \*, \*\*, and \*\*\* indicate significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Propensity Score Matched Sample					
Variables	Winner (Treated)	Non-Winner (Control)	Difference	t-Stat	p-Value
	Mean	Mean			
Log(Fund Size)	18.498	18.634	-0.136	-0.400	0.690
Portfolio Net Return	0.236	0.226	0.009	0.150	0.878
Average Flow	0.020	0.020	0.000	0.040	0.969
Volatility	0.042	0.038	0.004	1.340	0.186
Expense Ratio	0.973	0.911	0.062	0.590	0.557
Fund Alpha	-0.041	-0.046	0.005	0.160	0.872
Log(Fund Age)	5.073	5.086	-0.013	-0.090	0.930

Panel B: Abnormal Flow					
	Fund Flow		Abnormal Flow (AF)	T-Stat	
	Winner (W)	Non-Winner (NW)	Difference (W - NW)		
t=0	0.019	-2.096	2.115	2.540	**
t+1	16.923	5.038	11.885	1.550	
t+2	1.125	-0.057	1.182	0.570	
t+3	1.366	-0.865	2.364	3.490	***
t+4	10.240	0.286	11.727	1.640	
t+5	2.411	-0.367	2.383	1.600	
t+6	9.008	3.284	7.995	0.960	
t+7	3.914	4.508	0.336	0.050	
t+8	5.878	5.212	2.261	0.360	
t+9	0.625	0.265	-1.205	-0.320	
t+10	0.028	2.176	-2.823	-1.100	
t+11	1.900	2.040	0.052	0.030	
t+12	4.039	2.087	7.448	1.190	

Panel C: Cumulative Abnormal Flow (CUM_AF)			
	Winner - Non-Winner		T-Stat
CUM_AF (0 to +3)	17.364		2.150 **
CUM_AF (0 to +6)	35.454		2.170 **
CUM_AF (0 to +9)	36.524		1.900 *
CUM_AF (0 to +12)	40.122		1.910 *