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# Investor preference for skewness and the incubation of mutual funds

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**Abstract**

Mutual fund companies market the strong performance of funds created through incubation to gain the attention of investors who value recent returns. This creates an incentive for fund families to select highly skewed securities because extreme performance during incubation will increase the likelihood that some funds will outperform before they are sold to the public. Although incubation is as an innovative fund promotion technique, it may harm investors by creating the perception that random prior returns are a signal of fund quality. We find that net new money flow increases with an incubated fund's skewness. After incubated funds are sold to the public, skewed funds attract more investor dollars and their average performance declines. These results suggest that the use of skewed securities during incubation is an effective method for increasing demand, but may be a poor quality signal of future performance. 

*Jel classification:* G23; G11

*Keywords:* Mutual funds; Incubation; Skewness; Expense ratio; Performance

## 1. Introduction

Mutual fund companies use a variety of tactics to gain the attention of investors. Given that most investors have no formal training in what factors to assess when selecting a fund, they must look for easily understood cues of product quality (Barber and Odean, 2008).

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Faced with high search costs, many investors simply select funds that have high recent performance (Sirri and Tufano, 1998).

Mutual fund managers have an incentive to capture investor attention by creating funds that have high recent returns and marketing the performance of these funds to consumers. Mutual fund incubation is a tactic that some fund companies use to create new fund offerings. In incubation, families develop numerous new funds often with a limited amount of seed money. After a period of time, funds with a good performance track record are opened to the public, whereas those that underperform are liquidated before investors ever become aware of their existence (Evans, 2010). Because the highest performing funds are likely to capture the greatest investor attention, there is an incentive for fund managers to select securities with more highly skewed returns that are most likely to achieve well above average performance.

Both incubation and skewness of mutual funds are relatively unexplored areas within the financial literature. The purpose of this study is to investigate whether fund families have an incentive to initiate highly skewed incubated funds. We estimate net investor cash flow to incubated mutual funds that are launched with a positively skewed return at inception and compare characteristics and performance of incubated to non-incubated funds. The results of this study reveal that incubated mutual funds on average have a higher expense ratio than non-incubated funds. Incubated funds have significantly lower performance after they are opened to investors. We find evidence that fund flows are higher among incubated funds that are launched with a more positively skewed return at inception. Our results suggest that fund managers have a strong incentive to select highly skewed securities when incubating funds, and that the process of culling low performance before opening funds to the public can create a powerful, but ultimately false, signal of quality.

## 2. Review of literature

### *2.1. Mutual fund incubation*

Incubation is the process where a mutual fund company creates several mutual funds (incubator funds) seeded with their own resources and operated in private for a specified period of time (Palmiter and Taha, 2009). This process can either be done privately or publicly. Before a mutual fund company can market a new fund, it must first register the fund with the Securities Exchange Commission (SEC). If a mutual fund company decides to wait, and then register the incubator fund right before it becomes publicly available, it is referred to as "private incubation." On the other hand, "public incubation" occurs when the mutual fund company registers the incubator fund with the SEC when it is created, but does not actively market the performance of this fund until it is known (Evans, 2010). Those incubator funds that are unsuccessful in terms of realized returns are often eliminated and never publicized. Successful funds are then marketed to prospective investors.

Much of the literature on mutual fund incubation indicates that once an incubated fund becomes publicly available, it underperforms the market. For instance, Garavito (2008) shows that incubated domestic equity funds outperform non-incubated domestic equity funds on a risk-adjusted basis for the initial three years of existence. However, after three years the

incubated funds no longer outperform. Likewise, Ackerman and Loughran (2006) find that the average incubator fund outperformed the market by 358 basis points during incubation but underperformed the market by 423 basis points once it became publicly available. Similarly, Evans (2010) finds a negative relation between fund returns during the incubation stage and subsequent returns. Deciding when to launch a fund is an important aspect of the incubation process. To attract investors, mutual fund companies must launch their incubated funds once they have achieved returns for a particular period of time. Garavito (2008) finds that mutual fund companies tend to launch incubated funds when their returns are above the industry median.

The incubation process can last from a few months to several years. Ultimately, the goal is to launch the funds when returns are high enough to capitalize on the return chasing behavior of investors. By creating several funds, randomness, luck, or both will lead to one or few funds posting superior returns. By hiding the funds that did not perform well, investors are allowed to believe that the mutual fund manager was indeed able to identify underpriced securities in the market.

### *2.2. Skewness*

Despite the empirical evidence showing that investors are better off investing in passively managed funds (Carhart, 1997; Jensen, 1968), actively managed funds continue to thrive and attract consumers. The demand investors have for actively managed mutual funds may be attributed to a preference for skewness, or the increased likelihood of extreme returns. Investor preference for skewness is well documented within the financial literature. In his seminal article, Arditti (1967) demonstrates that investors prefer positive skewness in the return distribution. He maintains that an investor who has a decreasing absolute risk aversion forgoes an expected portfolio return to benefit from skewness. Similarly, Harvey and Siddique (2000) advocate that investors should prefer portfolios that are right-skewed instead of those that are left-skewed. Thus, assets that decrease a portfolio's skewness are less desirable and should require higher expected returns. Kraus and Litzenberger (1976) discover that investors are averse to variance, however, they have a preference for skewness. Likewise, Kumar (2009) finds that most individual investors demand lottery type stocks during poor economic periods and invest disproportionately more in stocks that display a higher skewness. Barberis and Huang (2007) imply that some investors prefer skewness because it enables them to have a more lottery-like wealth distribution.

Investor preference for skewness can be better understood with the aid of Cumulative Prospect Theory (CPT). Under CPT (Tversky and Kahneman, 1992) investors have a tendency to overweight small probabilities making highly skewed instruments more attractive. By overweighting the tails of a distribution, a mutual fund that exhibits positively skewed performance might appear to be more desirable. As a result, their returns become more lottery-like, gaining investors attention because they offer a small probability of winning with an especially high reward. Incubated mutual funds with a track record of high returns create the illusion that the fund may produce high positive returns in the future. This perception of lottery-like characteristics can make a mutual fund more attractive and provide

an incentive for fund families to select highly skewed securities during the incubation process.

## 3. Hypothesis

The incubation process allows a mutual fund company to select high performing funds to promote to consumers. They have an incentive to select securities within these funds that exhibit positively skewed returns to attract investors seeking high recent returns. Given the non-linear relationship between net investor cash flow and performance, companies gain more from promoting funds with greater skewness. We hypothesize that at inception incubated funds that are most skewed will receive a higher inflow of cash relative to other funds.

## 4. Data

The source of the equity mutual fund data comes directly from Morningstar Direct and the National Association of Securities Dealer (NASD) ticker creation date data.[1] Morningstar Direct reports historical net asset values, cash flow, expense ratios, and return data for live and defunct mutual funds. A sample of equity funds from the United States is collected. Following Evans (2010), only funds that have an inception date greater than or equal to January 1, 1996 is included in the sample. This allows funds at the beginning of the sample to be incubated for a minimum of three years since the ticker creation date data begins in January 1999. To determine which mutual funds were incubated we merge the data from Morningstar Direct with the NASD creation date data by the ticker assigned to each share class. The ticker creation date is the date a ticker was assigned to a particular fund. Excluded from the sample are indexed funds, foreign mutual funds, sector funds, closed-end funds, specialized funds, institutional funds, and funds with less than 30 months of return data. This brings the final sample of funds to 1,698. The sample is free of survivorship bias as it includes both funds that are extinct and funds that are currently active. Given that different share classes of a fund have claims to the same underlying portfolio and they do not differ in trades or investment holdings, we combine monthly total net assets across all shares for each fund, and the mutual funds returns and expenditure are then weighted accordingly.

## 5. Summary statistics

To determine whether a mutual fund was incubated, we observe the difference between the ticker creation date and the inception date of the fund. If the difference is positive it indicates a deferral between the start of the fund and the application for and the approval of a ticker for the fund. To get a clear distinction, if there is a difference of 12 months or more between the ticker creation date and the mutual fund's inception date the fund is classified as being incubated. Comparable to Evans (2010), we find that roughly 22.91% of the sample

Table 1 Summary statistics for incubated funds sorted by Morningstar Direct global category

| Morningstar global category | No. of observation (freq) | Expense ratio (%) | Total net assets ($ millions) | Manager tenure |
|---|---|---|---|---|
| U.S. large cap blend | 91 (23.39%) | 1.53 (0.65) | 88.52 (197.62) | 6.50 (4.90) |
| U.S. large cap growth | 82 (21.10%) | 1.73 (0.50) | 162.54 (310.75) | 5.57 (4.90) |
| U.S. large cap value | 56 (14.39%) | 1.90 (0.91) | 52.17 (108.91) | 6.71 (3.96) |
| U.S. equity mid cap | 86 (22.11%) | 1.72 (0.51) | 76.70 (154.58) | 5.91 (3.96) |
| U.S. equity small cap | 74 (19.02%) | 1.99 (0.47) | 57.24 (103.87) | 5.78 (4.13) |
| All | 389 | 1.76 (0.63) | 79.70 (180.57) | 6.10 (4.36) |

*Note*. Table 1 presents the aggregate summary statistics for incubated mutual funds. Means (*SD*) are presented for expense ratio, total net assets, and manager tenure. Additionally, presented is the number of funds along with their relative frequencies.

is incubated. Presented in Tables 1 and 2 are descriptive statistics showing some of the similarities and the differences between incubated and non-incubated funds sorted according to Morningstar Direct global category.

### *5.1. Expense ratio t tests*

Table 3 contains the result of a two sample *t* test in which the expense ratio, total assets under management, and manager tenure are compared for incubated and non-incubated mutual funds. According to Morningstar Direct, a fund's expense ratio is the percentage of fund assets used to pay for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. In examining the difference in mutual fund expenditure, as expected incubated funds on average have a statistically higher expense ratio than non-incubated funds. Prior studies indicate that mutual fund expense ratios have a negative relation with performance (Carhart, 1997; Gruber, 1996; Jensen, 1968). Consequently, mutual fund investors who purchase higher expense mutual funds end up losing as a portion of their returns goes to the mutual fund company to cover their expenses. Furthermore, investors are often unaware of the negative effect that high expenses will have on their returns (Alexander, Jones, and Nigro

Table 2 Summary statistics for non-incubated funds sorted by Morningstar Direct global category

| Morningstar global category | No. of observation (freq) | Expense ratio (%) | Total net assets ($ millions) | Manager tenure |
|---|---|---|---|---|
| U.S. large cap blend | 316 (24.14%) | 1.45 (0.57) | 140.25 (368.02) | 5.58 (3.40) |
| U.S. large cap growth | 320 (24.44%) | 1.70 (0.51) | 121.98 (287.20) | 5.43 (3.78) |
| U.S. large cap value | 179 (13.67%) | 1.72 (0.42) | 82.40 (158.64) | 6.21 (3.75) |
| U.S. equity mid cap | 269 (19.78%) | 1.72 (0.52) | 147.63 (371.15) | 6.12 (3.73) |
| U.S. equity small cap | 225 (17.18%) | 1.84 (0.54) | 87.62 (220.22) | 5.83 (3.64) |
| All | 1309 | 1.67 (0.54) | 120.34 (305.49) | 5.78 (3.66) |

*Note.* Table 2 presents the aggregate summary statistics for non-incubated mutual funds. Means (*SD*) are presented for expense ratio, total net assets, and manager tenure. Additionally, presented is the number of funds along with their relative frequencies.

Table 3 Two sample *t* test comparing incubated and non-incubated funds

| Variable | Incubated | Nonincubated | Difference | Test-statistic |
|---|---|---|---|---|
| Expense ratio | 1.75 | 1.67 | −0.08** | −2.29 |
| TNA | 79.90 | 120.3 | 40.44*** | 3.25 |
| Manager tenure | 6.09 | 5.0 | −0.30 | −1.27 |

*Note.* Table 3 presents the results of a two sample *t* test used to compare the differences in expense ratio, total net assets (TNA), and manager tenure of incubated and non-incubated mutual funds. Additionally, present in the table is the statistical difference and Swatterthwaite test statistics. Incubated $N = 389$, non-incubated $N = 1{,}039$.
*significant at 5%, **significant at 1%, and ***significant at 0.1%.

1998). The high expense ratio of incubated mutual funds might be attributed to a variety of factors. Because incubated funds are smaller, economies of scale may make them more costly to operate. Garavito (2008) finds that incubated mutual funds generally belong to smaller fund families. Haslem, Baker, and Smith (2008) show that funds with low expense ratio generally outperform those with higher expense ratios.

Also presented in the table is the difference between total net assets (TNA) and manager tenure. Incubated mutual funds are statistically smaller than non-incubated mutual funds. However, this result should be taken with caution as it appears that the mean of non-incubated mutual funds are driven by some very large funds as indicated by the standard deviation. Finally, we find that there is no statistical difference the in the length of time a manager has been with a fund.

## 6. Incubated funds and skewness

Given the widely acknowledged non-linear relationship between skewness and net investor cash flow, it may be safe to infer that an investor's preference for skewness is based on the upside potential signaled by funds in the market that experience recent high returns. Skewness is estimated mathematically in the equation below:

$$skewness = \frac{\sum i(R_i - \mu)^3}{\sigma^3} \tag{1}$$

where $R_i$ represents the monthly return of a mutual fund, $\mu$ and $\sigma$ symbolize the mean and the *SD*, respectively. One important feature of total skewness is that it is scaled by the variance of returns; this adjusts for any relationship between skewness and variance. Skewness not only captures the first two moments (mean of the return distribution and volatility risk) but it also captures asymmetry that is characterized by the third moment.

Consistent with the idea that mutual fund companies launch their best incubated funds, we anticipate that the returns of incubated mutual funds are more positively skewed while in incubation (Fig. 1). Similar to consumers who purchase a lottery ticket with the hope of experiencing a windfall, mutual fund investors will purchase incubated mutual funds that signal the ability to generate above average returns. In other words, by marketing the high returns of incubated funds, mutual fund companies are sending a signal to consumers that they have identified fund managers with superior stock picking skills.

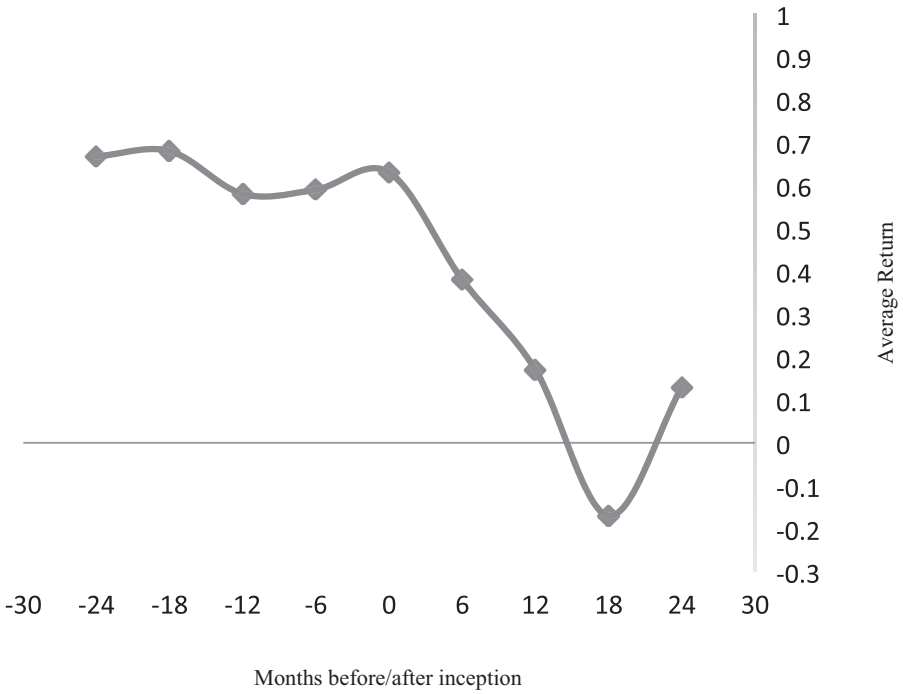


Fig. 1. Average return of incubated funds post-incubation and pre-incubation.

### 6.1. Results

Table 4 presents the descriptive characteristic of incubated mutual funds pre- and post-incubation. The results in the table indicate that the average raw return net of fees is higher for incubated funds while in incubation. This result is also statistically significant; however, this can be attributed to the mutual fund families launching their best performing funds ex post returns. Arguably this will always be the case, because those funds that perform poorly in incubation are eliminated and not made available to the public. Using incubation as a strategy to gain investor attention appears to be a success. The result show that, on

Table 4 *t*-test comparing various characteristics of incubated mutual funds post-incubation and during incubation

| Variable | Postincubation | During incubation (9,168) | Difference | *t* Value |
|---|---|---|---|---|
| Raw return | 0.37 | 0.55 | −0.17*** | 3.77 |
| Expense ratio | 1.77 | 1.80 | 0.01 | 0.93 |
| TNA | 89.28 | 18.27 | 71.00*** | 29.04 |
| Turn | 91.68 | 96.87 | −5.19*** | 4.22 |
| Number of observation | 42,085 | 9,168 | | |

*Note.* This table contains the descriptive statistics of mutual funds, post-incubation and during incubation. The mean and statistical differences with *t* values are report for skewness, annual returns net of fees, expense ratio, total net assets (TNA), and turnover ratio (Turn).

*significant at 5%, **significant at 1%, and ***significant at 0.1%.


Fig. 2. This figure shows net investor cash flow post-incubation.

average, incubated mutual funds quadruple in size shortly after being made publicly available. Fig. 2 plots the average raw returns of incubated funds pre- and post-incubation.

The reduction in performance post-incubation can be attributed to a few factors. First, there is clearly a selection bias since funds that perform well during incubation are more likely to be sold. However, this strong performance during incubation can simply be attributed to luck or random chance that that is not sustainable post-incubation. Second, mutual fund companies are able to give their mutual funds preferential treatment during the incubation process. As expected, there is a decline in incubated funds net investor cash flow in years following inception as an investor's decision are driven by performance.

Fig. 3 conveys the relative fund flows to incubated funds post-inception. The graph shows that there is an increase in investor cash flow during the first year after inception. However, there is a steady decrease from year two going forward. This is consistent with the notion that mutual fund investors are myopic return chasers. Therefore, given that incubated funds do not perform well outside of incubation they do not attract the interest of individual investors. The process of incubation is clearly beneficial to mutual fund companies. By posting funds that are positively skewed, they are effectively able to grab the intention of investors who are looking for funds that have superior management that can result in lottery like returns. This in turns increases assets under management generating higher income for the mutual fund investment company.

### *6.2. The impact of incubation on fund flows*

In this section, we examine the investor preference for skewness when investing in incubated mutual funds at inception. It is important to point out that our measure of net investor cash flow comes directly from Morningstar Direct and it is estimated by stripping out two types of activities. One is expected growth of the assets because of capital market movements. The other is reinvestment of the capital gains and dividend distributions that

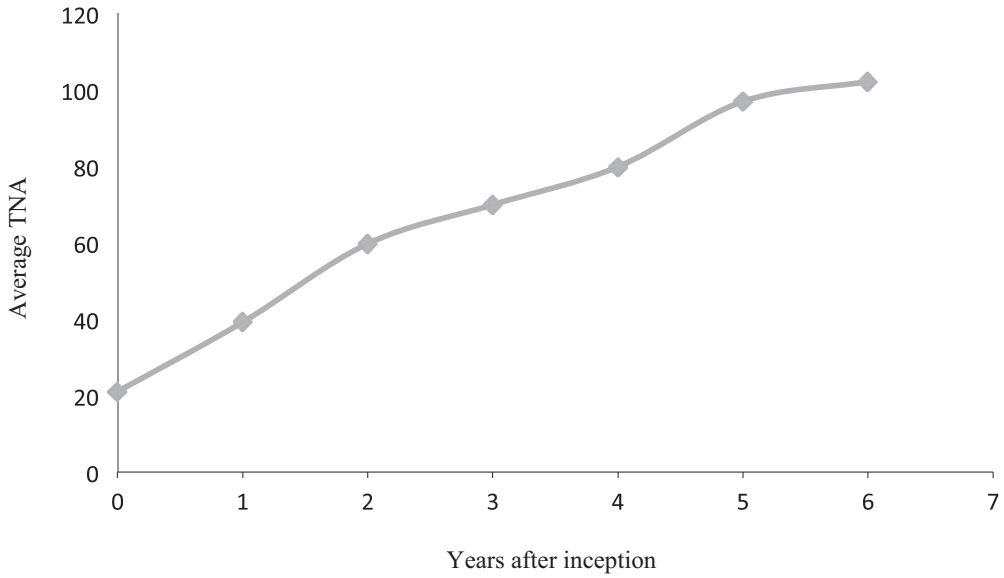


Fig. 3. This figure shows mutual funds total net assets post-incubation.

occur during the calculation month. Similar to Evans (2010), the dependent variable is ranked by year and month. We assign a fractional rank to each fund based on its net dollar flow for that year. We use a fractional rank instead of the direct measure of net investor cash flow for two reasons. First, the hypothesis being tested is whether incubated funds that are most skewed at inception attract a greater net dollar flow of funds. Given variation in the size of younger funds, using a percentage rank reduces the probability that the results are driven by outliers. Second, because there is variation in the net cash flow to mutual funds on a yearly basis, ranking funds within each time-period controls for the volatility. While observing mutual funds net investor cash flow, it is essential to control for various mutual fund characteristics that could impact the flow of money going into a fund. We control for the size of the fund, the fund's family, the age of the fund, the fund's expense ratio, as well as additional fees.

Controlling for the size of the fund is important for several reasons. First, Sirri and Tufano (1998) infer that an equal dollar flow will have a larger impact on smaller funds. Second, Barber, Odean, and Zheng (2005) advise that it will ensure that the results are not being driven by small funds. Barber, Odean, and Zheng (2005), Evans (2010), and Sirri and Tufano (1998), all document a negative relation between the total net assets of a fund and net investor cash flow, providing evidence that investors have a preference for investing in smaller funds. To control for the effect of outliers, the natural logarithm of total net assets (LnTNA) is included as a control variable. Because larger fund families are more identifiable in the financial market, we control for the effects of the fund family size on net investor cash flow. Evans (2010) shows a positive relation between a mutual fund's family size and net investor cash flow. Controlling for fund family size is important since fund families may steer money into new funds. Similar to Evans (2010), we also control for fund expenses and turnover. The non-linear relationship between mutual fund flows and performance is a

Table 5 Descriptive statistics

| Quintile | Skewness | Expense ratio | Turnover ratio | TNA | Family size | New money flow |
|---|---|---|---|---|---|---|
| 1 (low) | −1.29 | 1.67 | 87.23 | 119.44 | 774.17 | 0.42 |
| 2 | −0.77 | 1.70 | 89.36 | 139.76 | 821.14 | 0.25 |
| 3 | −0.43 | 1.70 | 91.56 | 129.77 | 769.63 | 0.63 |
| 4 | −0.06 | 1.72 | 90.25 | 134.23 | 870.54 | 1.02 |
| 5 (high) | 0.53 | 1.74 | 92.00 | 144.46 | 975.49 | 1.07 |

*Note.* This table provides the descriptive statistics for various mutual fund characteristics that are known to impact net investor cash flow. The results are sorted into quintiles by total skewness computed using Eq. 1. *Expense ratio* represents the mutual funds expense ratio. *Skewness* represents the annual skewness of the fund. *Turnover ratio* denotes the mutual funds turnover ratio. *TNA* and *Family size* represents the total net assets of the mutual fund and the mutual fund's family, respectively. New money flow denotes net investor cash flow into the fund.

well-documented phenomenon in the mutual fund literature. For example, Chevalier and Ellison (1997) provides evidence that shows a non-linear relationship between mutual fund flows and performance. Therefore, we control for performance using the annual market adjusted return over 12 months.

Summary statistics are presented in Table 5. Presented are various mutual fund characteristics that are known to impact net investor cash flow. The results are sorted into quintiles based on total skewness that is calculated using Eq. (1).

Funds that with the highest returns appear to have a higher expense ratio (*Exp*). Funds with the highest skewness have a higher turnover ratio. Those funds that are able to produce returns that are most skewed are larger and also belong to bigger fund families. Consistent with the notion that investors chase after funds that have performed well, the results show that funds with a more positively skewed return experience a higher the net investor cash flow. Finally, the results show a positive relation between net investor cash flow and skewness. Funds with skewness in the highest quintile experience a greater inflow of new money compared to those the lowest quintile.

### *6.3. Panel regression results*

Table 6 conveys the results of a panel regression that was used to explore the investor preference for incubated funds that are skewed at inception. Consistent with the findings of Evans (2010), results show that there is a positive relation between funds that are incubated and net investor cash flow. The signs of the control variables are also consistent with previous literature. Columns 3 and 4 show investors prefer investing in mutual funds that are positively skewed. In Column 5, we use an indicator variable to capture those incubated funds that belong to the highest skewness quintile at inception. Investors prefer investing in incubated funds that have a positively skewed return at inception. In Column 6, we examine funds that are incubated and belong to the lowest skewness quintile. The results here are statistically insignificant. Mutual fund managers appear to have an incentive to create funds in incubation and to launch these funds when their returns are highest.

Mutual funds investors appear to be driven by recent performance. Because incubated

Table 6 Panel regression: incubated funds at inception and net investor cash flow

| Variable | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Intercept | 0.51*** | 0.64*** | 0.75*** | 0.51*** | 0.77*** | 0.76*** |
| ID new incubated | 0.06*** | 0.05*** | 0.04*** | | | |
| | (7.74) | (6.22) | (5.24) | | | |
| Skewness | | | | 0.01** | | |
| | | | | (1.96) | | |
| ID Incep HiSkew | | | | | 0.04** | 0.04** |
| | | | | | (2.56) | (2.51) |
| ID Incep LowSkew | | | | | | 0.020 |
| | | | | | | (0.94) |
| $LogTNA_{t-1}$ | | −0.05*** | −0.01*** | −0.01*** | −0.01*** | −0.01*** |
| | | (−6.22) | (−6.61) | (−7.00) | (−7.05) | (−7.00) |
| Age | | −0.01*** | −0.01*** | −0.01*** | −0.01*** | −0.01** |
| | | (−6.29) | (−6.06) | (−5.88) | (−5.675) | (−5.76) |
| Log Famsize | | 0.01** | 0.01 | (0.00) | 0.01 | 0.00 |
| | | (2.27) | (1.36) | (1.28) | (1.21) | (1.30) |
| Expense ratio | | | −0.04*** | −0.03*** | −0.04*** | −0.04*** |
| | | | (5.72) | (−5.93) | (−5.80) | (−5.79) |
| Turnover ratio | | | −0.00 | −0.00 | −0.00 | −0.00 |
| | | | (−0.31) | (−0.22) | (−0.02) | (−0.28) |
| Ret1 | | | 0.003*** | 0.003*** | 0.003*** | 0.003*** |
| | | | (14.99) | (14.99) | (14.97) | (14.98) |
| Number of observations | 159,982 | 159,982 | 160,222 | 159,982 | 159,982 | 159,982 |
| Fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Pseudo $R^2$ | 0.01 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 |

*Note*. This table shows the coefficients from a regression of investor cash flow on fund characteristics, including whether the fund is incubated and in the highest skewness quintile at inception. The dependent variable is net cash flow ranked by month and year. Each fund is assigned a fractional rank between zero (lowest) and one (highest) based on net cash flow for that year. *ID incubated* is represented by one if the fund is incubated, zero otherwise. *Skewness* denotes the annual skewness of the mutual fund, computed using the formula in Eq. 1. *ID Incep HiSkew* and *ID Incep LowSkew* represents incubated funds that belong to the highest and lowest skewness quintile at inception. $LnTNA_{t-1}$ represents the log lag of a mutual fund's total net assets. *Age* represents the number of years a mutual fund has been in existence since its inception. *Log Famsize* represents the natural log of a mutual fund's family size. *Expense*, denotes the mutual funds expense ratio. Turnover represents the mutual funds turnover. *Ret1* is the market adjusted return for the prior 12 months Also reported are robust *t* statistics for each variable, number of observations, and Pseudo $R^2$.

The asterisks statistical significance as followed: *significant at 5%, **significant at 1%, and ***significant at 0.1%.

funds have that have achieved high recent performance can be selectively promoted, they are appealing to mutual fund investors. Generally, investors are not able to differentiate incubated and non-incubated funds; they simply select the fund that they believe will generate the highest possible return. This is problematic because the characteristic they often focus on as a quality signal is recent returns. This characteristic can be manipulated through the incubation process to create the false impression of positively skewed performance.

Evans (2010) details the light regulation by the SEC as it pertains to incubated funds. Because mutual funds are such a vital part of investors' portfolios, especially those who are selecting funds for retirement, the incubation of funds may create a predictable welfare loss.

This loss may be reduced by reducing a fund's ability to backfill data or increasing awareness among financial advisors or investors of the incubation process.

## 7. Conclusion

Consumers faced with high search costs when selecting mutual funds look for salient quality signals such as recent prior returns. Recent returns can be manipulated by fund families through the process of incubation in which successful funds are marketed and unsuccessful funds are eliminated. We hypothesize that funds have an incentive to select highly skewed securities when incubating funds to increase the likelihood that some funds will achieve significant outperformance before they are sold to the public. To test this hypothesis, we investigate whether new investor dollars flow toward more highly skewed incubated funds after inception.

The results of this study reveal that incubated funds carry a higher expense ratio relative to non-incubated funds. Given that incubated funds are launched only after they achieve high returns, mutual fund companies are able to charge greater fees because they know that investors respond positively to performance. However, as the results of this study show, incubated funds do not have exceptional performance post-incubation. As a result, investors are made worse off investing in high expense funds that are created through incubation. The results of this study also reveal that when incubated mutual funds are made available to the public, those funds highly skewed before launch receive a larger inflow of funds relative to other funds. A possible explanation is the upside potential demonstrated by these funds during incubation. Arguably, investors are not identifying managers with superior stock picking ability, but they are identifying funds whose possibly random outperformance during incubation is marketed as a signal of quality. This practice may be misleading and, given that these funds carry higher fees and do not perform as well once they are publicly available, there is a potential loss of wealth to investors.

## Notes

1 I would like to thank Richard Evans at the University of Virginia for providing me with this data.

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