Discussion of "Do Mutual Fund Investors Chase False Returns?"

Blake Phillips, Kuntara Pukthuanthong, & P. Raghavendra Rau

2013 SFS Finance Cavalcade
May 15, 2013

Jonathan Reuter
Boston College & NBER

Big Picture

- Paper is broader than the title suggests. Authors attempt to answer three questions:

  1. Do mutual fund investors chase false returns?
  2. Do mutual fund advertising campaigns encourage (less sophisticated) investors to chase false returns?
  3. Do mutual funds increase fees to extract rents when investors chase false returns?

- The answers to all three questions are internally consistent, which makes for a very interesting paper.

- **My take:** Evidence of strategic behavior by mutual funds is more intriguing but (currently) less convincing than evidence of questionable behavior by investors.

Main Findings

1. Mutual fund investors chase positive false returns (T1) … but not false negative returns (T2).

2. Mutual funds are more likely to advertise holding period returns (HPRs) when HPRs are higher **AND** when returns being dropped are lower (T4).
3. False return chasing increases with the level of advertising, particularly advertising that features HPRs (T5, C-S).
4. False return chasing increases with level of fund fees; some evidence it is higher for institutional funds (T6, C-S).
5. False return chasing is higher when VIX is higher (T7, T-S).

6. Mutual funds are less likely to waive fees when investors exhibit more false return chasing (T8).

Empirical Strategy

- Consider two most recent holding period returns (HPR) calculated over the past twelve months:

$$1 + HPR_{new} = (1 + r_{t-1})(1 + r_{t-2})(1 + r_{t-3}) \cdots (1 + r_{t-12})$$

$$1 + HPR_{old} = (1 + r_{t-2})(1 + r_{t-3}) \cdots (1 + r_{t-12})(1 + r_{t-13})$$

$$\Delta HPR = \frac{1 + HPR_{new}}{1 + HPR_{old}} = \frac{(1 + r_{t-1})(1 + r_{t-2}) \cdots (1 + r_{t-12})}{(1 + r_{t-2})(1 + r_{t-2}) \cdots (1 + r_{t-13})} = \frac{(1 + r_{t-1})}{(1 + r_{t-13})}$$

$$\ln(\Delta HPR) = \ln(1 + r_{t-1}) - \ln(1 + r_{t-13})$$

- Authors regress $flow_t$ on r_{t-1} and r_{t-n} (separately for n = 2, ..., 61).
- **Prediction:** If investors focus on HPR but are unable to isolate contribution of r_{t-1} then estimated β_{13} on r_{t-13} will be negative... and estimated β_n on r_{t-n} not associated with change in HPR will be zero (or less negative).

Empirical Strategy *(cont.)*

- Authors' estimates of β_{13}, β_{37}, β_{61} are (more) negative ➔ clever way to show that investors chase false returns.
- Am I surprised? Nope. Reuter & Zitzewitz (2013) show flows jump as returns cross Morningstar star rating thresholds ➔ evidence that investors rely on imperfect measures of fund performance.
- As the authors discuss most clearly at the end of the paper, there are two distinct sources of variation in $\mathbf{r_{t-13}}$
  - **T-S:** Low average returns in style ➔ likely to effect relative rank of different styles rather than rank within style.
  - **C-S:** Idiosyncraticly low returns relative to peer funds ➔ likely to effect rank within style.
- To isolate time-series variation, authors should focus on monthly style-level flows. To isolate within-time and within-style variation, the authors should include style-by-month FEs.

Empirical Strategy *(cont.)*

- **Do investors focus on HPR in isolation or use it to rank funds?**
  - Fund i's HPR goes up when $\mathbf{r_{i,t-1} - r_{i,t-13} > 0}$.
  - Fund i's rank goes up when $\mathbf{r_{i,t-1} - r_{i,t-13}}$ **> peer fund average**.
  - What is the predicted change in fund *i*'s rank within its style based solely on dropping $\mathbf{r_{i,t-13}}$ (i.e. how large is $\mathbf{r_{i,t-13}}$ relative to the variability of peer fund returns over the past 12 months)?
  - Expect smaller changes in rank over 36 and 60 month horizons.
- **How large are incremental flows due to chasing false returns?**
  - R & Z (2006): Positive media mention ➔ 7-15%.
  - R & Z (2013): RD estimate at 3/4 and 4/5 cutoffs ➔ 2.5%.
  - R & Z (2013): Rating change due to '02 formula change ➔ ~5%.

Strategic Advertising of HPRs?

- Funds spend advertising HPRs when they are higher (**obvious**) and when the recently dropped returns are lower (**neat**).
- However, spending on ads that include HPRs has fallen sharply.

	2005	2006	2007	2008	2009	2010	Total
TOTAL	210,070	228,135	273,807	309,696	250,945	309,850	1,582,503
Magazine	148,634	169,341	184,043	213,006	147,315	182,969	1,045,308
	70.8%	*74.2%*	*67.2%*	*68.8%*	*58.7%*	*59.1%*	*66.1%*
Mutual Fund Focused	64,582	72,469	73,862	63,166	23,330	35,146	332,555
	30.7%	*31.8%*	*27.0%*	*20.4%*	*9.3%*	*11.3%*	*21.0%*
Fund Specific	49,869	52,658	54,202	39,008	15,517	18,212	229,466
	23.7%	*23.1%*	*19.8%*	*12.6%*	*6.2%*	*5.9%*	*14.5%*
Advertise HPR	**26,899**	**20,873**	**15,773**	**8,641**	**1,615**	**2,044**	**75,845**
	12.8%	***9.1%***	***5.8%***	***2.8%***	***0.6%***	***0.7%***	***4.8%***

- Authors should consider switching from annual to monthly/quarterly advertising data and should include style-by-date FEs.
- Selected sample? Only ever advertise HPR when returns are high.

False Return Chasing Vary Across Funds?

- General approach is to argue that estimated β_{13} and β_{31} and β_{61} are more negative for some types of funds than for others.
  - It would be nice to see that estimates for non-HPR related β_n exhibit different behavior.
  - It would be nice to see estimates for index funds.
- Evidence based on variation in investor sophistication is mixed.
- Find institutional funds are at least as likely to chase false returns
  - Opposite of what I'd expect given Evans & Fahlenbrach (2012)
- Two other proxies for investor sophistication (expense ratio and turnover) are old school!
  - Del Guercio & Reuter (2013) document significant differences in flow-performance and behavior of direct-sold and broker-sold funds. I'll discuss with the authors how they might test for differences in false return chasing.

Strategic Fee Setting?

- Higher fees are associated with more false return chasing. **But, do mutual funds respond to false return chasing by raising fees?**
- Complication: "contractual fees are typically time invariant and may only be changed with shareholder consent."
  - Time-series variation in fund-level fees is driven by variation in relative sizes of different share classes ➔ many existing tests are hard to interpret.
  - Management fee does not vary across share classes... but can vary mechanically with AUM ➔ should control for breakpoints.
- Best test is based on use of fee waivers (Christoffersen (2001)).
  - **More false return chasing results in fewer fee waivers.**
  - How common are fee waivers in author's sample of domestic equity funds? Ability to stop waiving fees is limited to funds that are waiving fees. Tests should reflect this inherent asymmetry.

Summary

- Research questions are interesting.
- Empirical strategy is clever.
- Paper is fun to read.
- I'm convinced some investors are chasing false returns
  - Because I'm convinced that it would be hard for typical investor to determine how much of the change in HPR is due to adding $\mathbf{r}_{i,t-1}$ versus dropping $\mathbf{r}_{i,t-13}$ and because I believe the strategic advertising story.
- My main advice for the next version: Better proxies for investor sophistication and more focus on fee waivers.