

*Discussion of:*

Can Mutual Fund “Stars” Really Pick Stocks?  
New Evidence from a Bootstrap Analysis

*by Robert Kosowski, Allan Timmermann, Hal White, and  
Russ Wermers*

American Finance Association

January 6, 2002

*Discussant:*

Kent Daniel

Kellogg, Northwestern & NBER

## Why is this an Interesting Question?

1. More money than every is under the control of indirect managers, who make decisions about where money should be invested.
  - (a) Though more money than every is in passive funds there is over \$1 trillion in active funds.
  - (b) Active funds have considerably higher fees than passive funds.
    - For example, as of a few years ago, the Vanguard S&P 500 Index fund had expenses of 0.20% per year, while the Fidelity Magellan Fund had an initial load of 3%, and expenses of 0.95% per year.
    - The average expense ratio of active funds was 130 basis points (Carhart 1997)
    - This suggests U.S. investors spend over \$10 billion/year on active management.
2. In deciding where to invest money, and how much to pay the fund, it is crucial to be able to determine how much fund managers add.

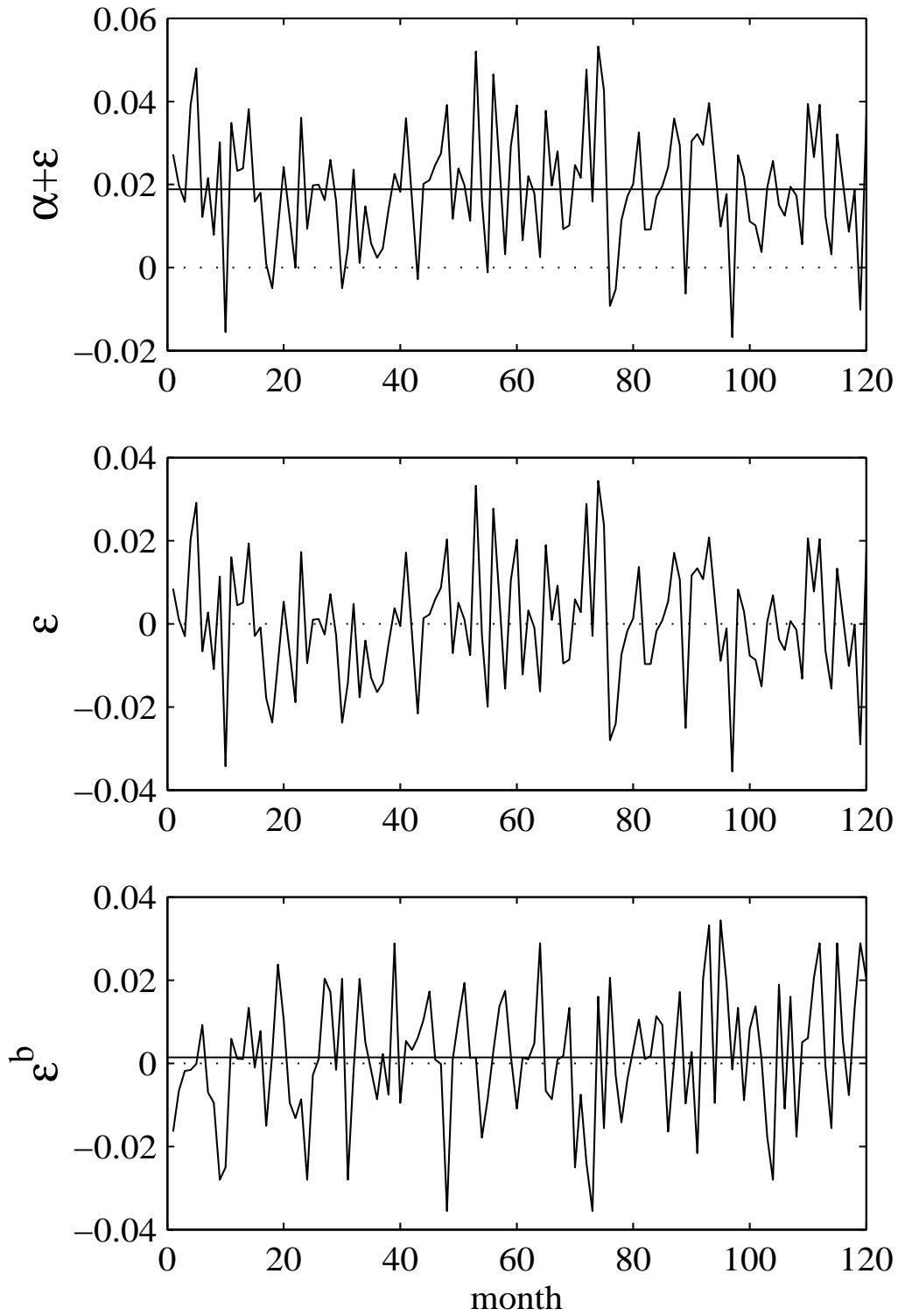
## Average Manager Performance:

1. Early studies (Jensen (1968)) found, and later studies continue to find that the *average* active manager adds very little/no value:
  - For example, Daniel, Grinblatt, Titman, and Wermers (1997) and others find some evidence of abnormal *pre-expense* positive performance among aggressive growth funds after controlling for size, book-to-market and momentum.
  - However Carhart (1997) finds evidence of negative *average post-expense* performance, and no evidence of positive *post-expense* performance for even the highest past-performance funds.
  
2. This evidence suggests that an investor is better off buying a passive fund than investing in the *average* active fund. However, there is also the question of whether there are some *exceptional* managers who do add value.
  - This is the question this paper explores.

## “Star” Performers:

1. There is some evidence suggesting that *some* managers do have substantial stock-picking skill.
2. For example, Marcus (1990) argues that the Peter Lynch exhibited statistically significant abnormal performance, even after we correct for the fact that he was the best performing manager of this period.
  - Lynch beat the S&P 500 in 11 of the 13 years in the 1977-1989 period.
  - Marcus shows that this in itself is not evidence of value-enhancement – If we look at a set of 500 “coin-flippers,” let each of them flip 13 coins, the winner will, on average, have 11.63 heads.
  - However, Lynch also beat the S&P by large amounts and consistently (from 79-89, Magellan returned 28%/year, vs. 17.5% for the S&P).
    - Marcus argues that this high mean and low variance makes Lynch’s performance statistically significant
3. The paper here takes the same basic approach, but uses a sophisticated bootstrap method that is robust to:
  - Non-normality of returns.
  - Cross-section correlation of returns.
  - Time-series correlation of residuals

## Basic Approach:



## **Enhancements to the Basic Approach:**

## Are they Selling Puts?

- A strategy of selling puts would result in an extreme left skewed distribution.
  - One example would be selling an out-of-the-money put option.
  - Such a strategy will *almost always* give a positive abnormal return.
    - \* However there is always a small probability of a very negative outcome.
  - Some have alleged that LTCM pursued such a strategy.
- A put-selling strategy is not likely to affect the apparent performance of the average firm, or a portfolio of firms.
- However, it can dramatically affect the apparent performance of the extreme firms.
  - And, the bootstrap methodology won't help you here.

- For example suppose that, each month, a firm sells OOTM puts for a price equal to 2% of its current equity, maturing at the end of the month, with a probability of exercise of  $p = 5\%$ .
  - If the probability in any month of a negative outcome from such a strategy  $p = 5\%$ , then 95% of the time, the firm will earn an abnormal return of exactly 2%.
  - However, when the firm loses, which it will do 5% of the time, it will lose on average 38%.

$$0.95 \cdot 0.02 + 0.05 \cdot -0.38 = 0$$

- The probability that an individual firm experiences no negative outcomes over a span of 10 years (120 months) is:

$$p_I = (1 - p)^{120} = 0.21\%$$

- Thus, the average firm, or a portfolio of firms, is extremely unlikely to exhibit any abnormal returns.
- However, if there are  $N = 500$  firms each employing independent put strategies, the probability that at least one of them has all positive outcomes is:

$$1 - (1 - p_I)^{500} = 65.4\%$$

- $\hat{t}_\alpha$  for such a firm would be infinite.
- The bootstrap method would conclude that the probability of such an outcome would be zero, and hence the researcher would find evidence of skill in the tails of the distribution.
- The authors' evidence is consistent with such a story.



## Should you Buy Actively Managed Funds?

1. However the results *don't* justify buying actively managed funds.
2. There are really two questions here:

(a) Do some manager's have *ex-post* identifiable skill?

(b) Is this skill identifiable, in the sense that there is a implementable mutual fund trading rule (based on *ex-ante* observable instruments) that yields abnormal profits?

The evidence here suggests (a), but not necessarily (b).

3. If you can't identify the "star" managers *ex-ante*, then you should still stick with passive management.
4. The standard *ex-ante* observable instrument is past performance – that is looking for performance *persistence*.
  - However, Chevalier and Ellison (1999) find that there is *manager* persistence, not *fund* persistence. (consistent with the Magellan Fund!!)
  - Also, Chevalier and Ellison find that
    - Younger managers, with an MBA, from a good undergraduate institution, with high composite SAT scores do better!
5. Neither this paper, nor Baks, Metrick, Wachter (2001) evaluate whether the manager skill they identify persists.

## References

- Carhart, Mark M., 1997, On persistence in mutual fund performance, *Journal of Finance* 52, 57–82.
- Daniel, Kent D., Mark Grinblatt, Sheridan Titman, and Russ Wermers, 1997, Measuring mutual fund performance with characteristic-based benchmarks, *Journal of Finance* 52, 1035–1058.
- Jensen, Michael C, 1968, The performance of mutual funds in the period 1945-1964, *Journal of Finance* 23, 389–416.
- Marcus, Alan J., 1990, The Magellan fund and market efficiency, *Journal of Portfolio Management* pp. 85–88.