



## **Letter to the Editor – Luck versus Skill in Active Mutual Funds**

August 12, 2008

The following letters are in response to our article [Luck versus Skill in Active Mutual Funds](#), which appeared on August 5, 2008.

Response to:

### **Luck versus Skill in Active Mutual Funds**

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The Barras, Scaillet, and Wermers (BSW) paper featured in this AP article builds on a long line of studies that conclude active equity managers add no value net of management fees. It also provides additional depressing evidence that manager skill (as defined by a positive alpha) seems to have all but vanished in recent years.

What is surprising to me is that fund performance results point in exactly the opposite direction. Using a more inclusive 1980-2008 active US equity open end mutual fund data base than did BSW, I find that:

- The average fund alpha is characterized by an upward sloping time trend.
- Currently, my best estimate is that the average active US equity fund outperforms the S&P500 by roughly 100bp after fees. So, unlike times past, it is now a rational decision to invest in the average active manager rather than in an index.
- As the average fund alpha has increased over time, the average fund standard deviation has decreased. Thus alphas are improving while risk is declining.
- Over the first six months of 2008, a difficult market environment indeed, the average after fees fund alpha was a whopping 463bp (annualized).

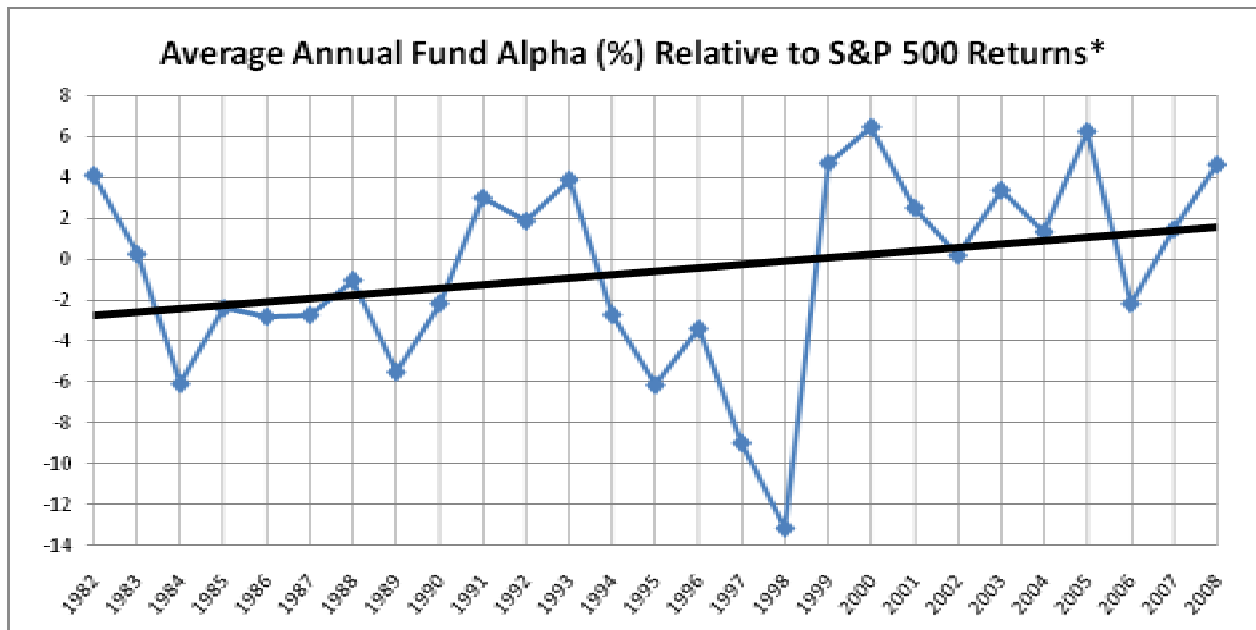


These observations point to increasing managerial skill among active US equity managers rather than decreasing skill as claimed by BSW. It also argues for investing in a portfolio of active managers rather than in an index.

### Evidence and Data

My data is all active US equity open end mutual funds that existed during any month over the 28 1/2 year period January 1980 through June 2008 as reported by Thomson Financial. I exclude index, mixed asset, target date, and allocation funds. Monthly fund returns, net of automatically deducted management and other fees, are calculated by averaging the returns across all share classes existing in that month. The final sample is comprised of 4,207 funds and 482,443 fund/month observations. At the end of 1982 there were 300 funds, with the number increasing to a peak of 2,617 at the end of 2003, and then declining to 2,117 as of June 2008. Thus, there has been a roughly 20% drop in the number of funds since 2003.

Annual alphas, based on S&P500 benchmark returns, are calculated by summing the average monthly fund alphas within each year. The resulting annual alphas are shown below, along with the alpha time trend.



\* For 2008, annualized sum over first 6 months

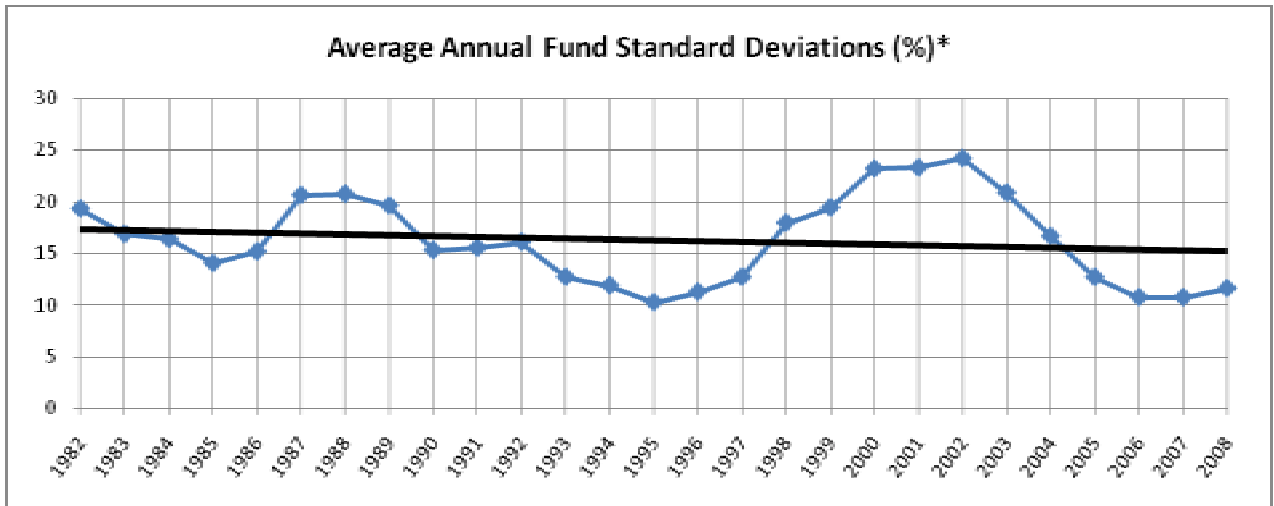
Average annual alphas are highly volatile, with some years very negative and others very positive. The average alpha over all fund/month observations is -82bp, similar to what others have found. However, the time trend is positive, with



a slope of 14bp annually. The implication is that managers are becoming more skilled over time.

There is also support for the notion, observed by others, that manager skill is more valuable during challenging economic times. Fund alpha averaged 232bp over the eight economically difficult years of 1982, 1983, 1990, 1991, 2000, 2001, 2007, and 2008. In contrast, average fund alpha plummeted during the supercharged economy of the late 1990's. In fact, the fund underperformance observed over 1982 - 2008 can be turned into superior performance when 1995-99 is eliminated, resulting in an average fund alpha of 20bp. While the late 90's were an amazing time economically, they were not at all kind to equity fund managers.

Below is a graph of the average fund 36 month trailing annual standard deviations as of the end of each year, along with the time trend. Note that there is a downward trend (-8bp annually), implying average fund risk declined over this period.



\* For 2008, as of end of June.

Together, these two graphs reveal average fund performance has improved over this nearly thirty year time period while average fund volatility has declined. This represents a strong case for increasing manager skill.

So why did BSW come to such a different conclusion?

I and BSW are using essentially the same data over the same time period, so our diametrically opposed conclusions are driven by different methodologies. My results are based on straightforward, intuitive calculations. BSW employs



complicated statistical techniques that distort the conclusions reached, as I argue below.

1. In using the Carhart four factor risk model, BSW needs at least 60 months of historical data to estimate required parameters. Thus they eliminate all fund/month observations that are preceded by less than 60 months of history. This dramatically reduces sample size. For example, if I were to follow this procedure, 44% or 210,640 of my fund/month observations would be eliminated. Essentially BSW have gutted their sample in order to feed the data voracious Carhart model.
2. It turns out that funds with less than five years of history generate very attractive returns. In my sample, the fund/months with less than 60 months of history generate an average annual return 50bp higher than those with a longer history. By eliminating short history observations, BSW injects a downward bias into their results.
3. In addition, there is a negative relationship between returns and fund history. That is, the longer the fund history, the lower the average return. This is a counterintuitive result in that most feel longer histories imply a better manager and thus higher returns. In fact, many in the industry demand long performance histories before a manager is even considered. But the evidence portrays the opposite, the shorter the history the better the performance. Thus any search for manager skill needs to include short history funds, which BSW does not.
4. BSW compound their mistake by looking at life-of-fund alphas for evidence of managerial skill. This is consistent with the widely held belief that skilled managers perform consistently over time and skill cannot be detected without long performance histories. The data reveals a different reality. On average, superior manager skill exists early in the life of a fund, with declining performance thereafter. This means that it is easier to find a skilled manager among funds with short histories than among those with long histories. (Note that this is just the opposite of the approach used by most investors when looking for skilled managers). Any search for manager skill should consider these realities. BSW fail at this.
5. The combination of shorter history funds performing better and deteriorating performance with lengthening fund history produces an undesirable end-of-sample bias in the BWS study. Over the last five years of their study (i.e. 2002-2006), no new funds are included and the funds that are included have ever lengthening histories. Thus there was a growing downward bias in their results as the last sample year approaches. This may help explain why they



observe a decline in manager skill at the end of their sample. Note that extending the sample will not remedy this bias. BSW must change their methodology in order to eliminate this bias.

6. As a final comment, BSW cannot make the statement of having precise estimates of the number of lucky managers. This is because such estimates depend critically on the underlying statistical model being assumed. BSW assume three distributions, one each for unskilled, zero alpha, and skilled managers. This allows them to estimate precisely the number of lucky managers. But what if the truth is many distributions, one each for managers with slightly differing skills. Then it becomes impossible to estimate precisely the number of lucky managers. BSW overstate their level of precision.

### Manager Skill is Increasing

The number of skilled managers is a direct function of the overall average fund alpha. The higher the average alpha, the larger is the number of skilled managers. The results I have presented reveal an upward trend in fund alpha combined with a decline in fund volatility. These observations point to increasing managerial skill rather than decreasing skill as claimed by BSW. Today, the average active US equity fund is delivering a solid value proposition to its investors.

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