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Is the Price Right in Asset Management?

There are a couple of old sayings that could apply to fees paid to asset managers. “You get what you pay for,” which implies that higher fees or costs are associated with better quality, and, “A penny saved is a penny earned,” which in this context means that every dollar an investor doesn’t pay in asset management fees increases the return by a commensurate amount. Are higher fees indicative of above-average performance or a prelude to, or even a cause of, below-benchmark returns?

In responding to the question posed, this *Investment Insight* will analyze and reconcile these opposing views, at least for active U.S. equity managers. Segal Rogerscasey chose this specific subset for a few important reasons — first, data is robust and easily available; second, histories are long, enabling non-time-period-specific analysis; and finally, given allocations for most investors, this sub-asset class covers a substantial proportion of invested assets for U.S.-based investors.

The Options Are...

Let us begin this analysis without the benefit of the data, which is examined later in this *Investment Insight*, and speak to some of the logic supporting each possible conclusion. Importantly, there are three possible answers:

- Higher fees tend to result in higher net-of-fee returns.
- Higher fees tend to result in lower net-of-fee returns.
- The level of fees has no explanatory power as to net results.

In considering the first option, we know that active asset management skill is a rare commodity. We also know that rare commodities are generally more expensive than common commodities (think art, stamps, coins, Beanie Babies, etc.). Applying the basic law of supply and demand, a constrained supply with a rising demand should inflate prices or fees. We also know that talent — those asset managers able to demonstrate skill — will generally seek improved compensation when recognizing this rarity, and higher compensation requires higher fees to support those expectations. Naturally, this presumes a reasonably functioning behavioral and economic system. Fundamental economics and human nature, therefore, support the notion that higher fees would be associated with higher skill and, therefore, improved relative returns.

The second option, that higher fees tend to result in lower net-of-fee returns, can be rationally supported with several arguments. Perhaps the data will indicate the fact that skill exists, but that the skill of the higher-fee managers is insufficient, on average, to offset the fees, again on average. It also could be true that circumstances that could support favorable results are insufficiently persistent to offset the fee over a relevant timeframe.

In this case, for example, a skilled person managing a high-fee-level product may depart or cease investing the product being evaluated before sufficient excess return has been generated to offset the costs. It is also possible that high-fee products with high levels of performance become overwhelmed with asset flows, ultimately causing performance to deteriorate, allowing the asset manager to charge high fees even though performance over the entire term may be below average.

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It is reasonable to postulate that fee levels and performance are completely random. This last explanation, randomness, is different from the third option: fee levels have no explanatory power as to net results. Randomness is defined as “occurring without reason or pattern,” while a lack of explanatory power means that the results cannot be understood or are unintelligible. We could describe chaos theory at this point, but suffice it to say there is a difference between patterns that cannot be predicted and those that cannot be understood. In terms of predictability or the use of fee levels as an indicator of effective asset management, however, randomness and the lack of explanatory power have the same result — uselessness.

The Data Set

Segal Rogerscasey obtained the data for its analysis from Morningstar Direct. Segal Rogerscasey collected the net-of-fee returns (return) and the net-expense ratio (fee) for each year, from 2003 to 2013, for each equity mutual fund in the database that fell within the nine Morningstar Style Boxes (style) shown in Table 1 below. Funds with incomplete data (such as having a return, but no fee) were excluded.

Table 1: Morningstar’s Style Box for Equity Mutual Funds

Size	Style		
	Large Value	Large Blend	Large Growth
	Mid Value	Mid Blend	Mid Growth
	Small Value	Small Blend	Small Growth

Segal Rogerscasey’s Methodology

To test whether funds that charge higher fees outperform those with lower fees on a net basis, Segal Rogerscasey applied two analytical techniques drawn from the testing of anomaly returns amongst equity securities: the cross-sectional decile spread method (spread portfolios) and the cross-sectional regression method (slope portfolios), each described in Tables 2 and 3 on the next page. Typically, both of these methods are used to identify and measure equity returns that are not explained by the Capital Asset Pricing Model, such as size and style (Fama and French 1993). Both methods are complementary, and can be used to crosscheck each other.

“For each year and style, spread portfolios and slope portfolios were calculated to measure the differences between high- and low-fee managers.”

For each year and style, spread portfolios and slope portfolios were calculated to measure the differences between high- and low-fee managers. The results of the individual styles were averaged over all years to get a single average for each style. These were then averaged across styles to obtain an overall single numeric result.

Table 2: Spread Portfolio Method

- Procedure:
1. Sort all funds in the style from highest fee to lowest fee,
 2. Calculate each fund's standardized fee score by taking the individual fund's fee and subtracting the style's average, then divide the result by the style's standard deviation,
 3. Using the fund's standardized fee score, calculate a fund's cumulative normal distribution function percentile (the portion of the distribution to the left of the value) by fee,
 4. Average (equal weight) the fund returns for the 90th percentile and above, and the 10th percentile and below, and
 5. Calculate the difference between the average fund returns for the group in the highest decile and the lowest decile.

- Notes:
- If the difference is positive, higher-fee funds, on average, would have outperformed the lower-fee funds, on average. If the difference is negative, the opposite would be true.
 - The remaining funds, viz., those funds that are neither in the highest nor the lowest deciles, are excluded from this part of the study.
 - The number of funds in each decile is not necessarily equal.

Table 3: Slope Portfolio Method

- Procedure:
- Perform a regression using:
1. The individual fund returns as the dependent variable (Y) and
 2. The individual fund fees as the independent variable (X)

Unlike the spread portfolio method, this method uses the data for all funds in each year and each style. The slope of the line resulting from the ordinary least squares regression is the portfolio return. It is also a zero-investment portfolio, with a higher long position weight as the fee gets higher, and a higher short position as the fee gets lower, with the long being balanced exactly by the short.

- Notes:
- An individual fund's weight in the regression is determined by the following equation:

$$w_i = \frac{(x_i - \mu_x)/n}{\sigma_x^2}$$

Where:

- w_i = individual fund's portfolio weight
- x_i = individual fund fee
- μ_x = average fee for all funds in a style for a year
- n = number of funds in a style for a year
- σ_x^2 = variance of the fees for all funds in a style for a year

- If the result is positive, higher-fee funds, on average, would have outperformed the lower-fee funds, on average. If the result is negative, the opposite would be true.

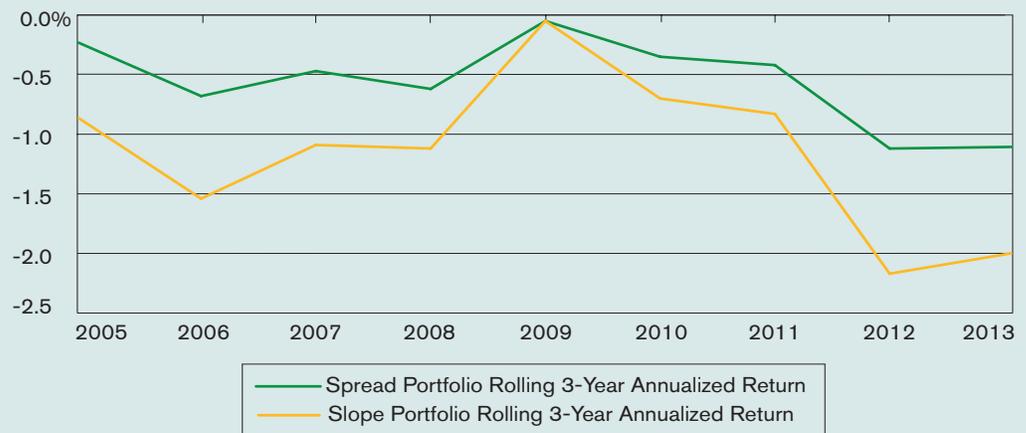
The Results

On an aggregate basis, higher-fee funds underperformed lower-fee funds, with the arithmetic annual averages for all style boxes as follows:

- Spread portfolio method: -1.15 percent
- Slope portfolio method: -0.54 percent

The average of all style boxes and the arithmetic annual average for each style over the 10-year study period can be seen in Graph 1 and Table 4, respectively, below.

Graph 1: Average of All Style Boxes



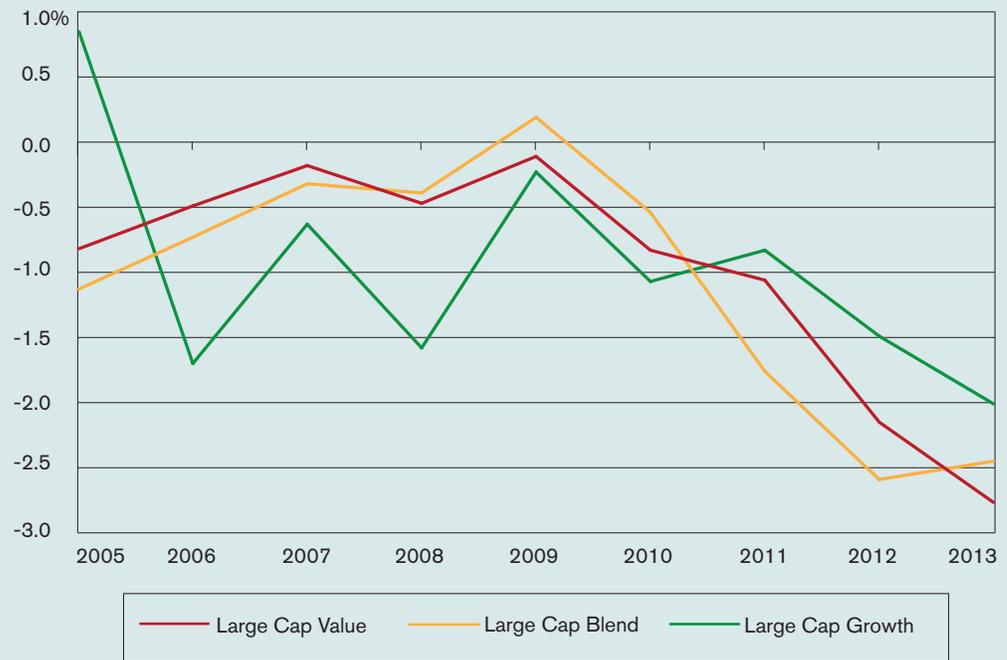
Sources: Morningstar Direct, Segal Rogerscasey

Table 4: The Arithmetic Annual Average 2003–2013 Results for Each Style

	Large Value	Large Blend	Large Growth
Spread Portfolio	-1.25%	-1.24%	-0.83%
Slope Portfolio	-0.69%	-0.66%	-0.38%
	Mid Value	Mid Blend	Mid Growth
Spread Portfolio	-0.79%	-2.59%	-1.37%
Slope Portfolio	-0.63%	-0.85%	-0.91%
	Small Value	Small Blend	Small Growth
Spread Portfolio	-1.10%	0.09%	-1.24%
Slope Portfolio	-0.38%	0.25%	-0.63%

In the large cap style, high-fee Value funds did only slightly worse than average on a spread portfolio basis, and worse than average on a slope portfolio basis. High-fee Blend funds did worse than average on both a spread portfolio and slope portfolio basis. High-fee Growth funds did better than average on both a spread portfolio and slope portfolio basis. Study results for the large cap styles can be seen in Graphs 2 and 3 below.

Graph 2: Large Cap Spread Portfolio Rolling Three-Year Annualized Style Returns



Sources: Morningstar Direct, Segal Rogerscasey

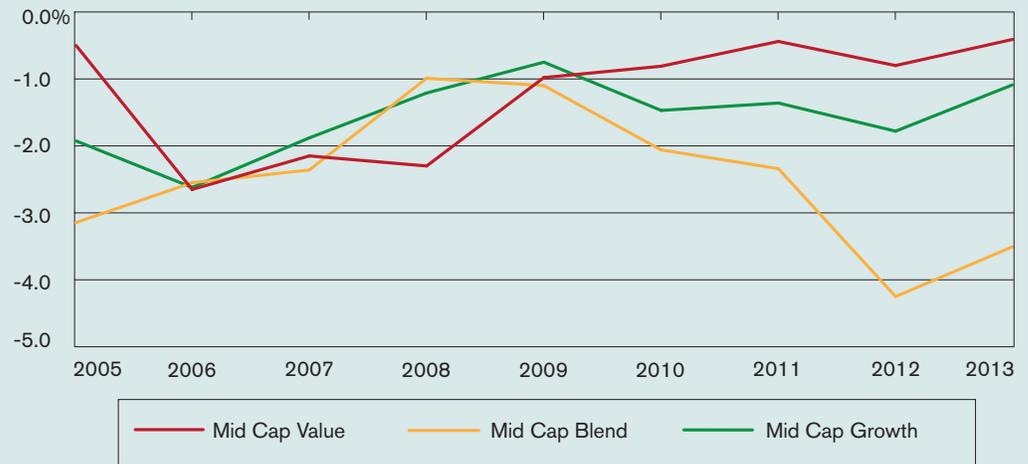
Graph 3: Large Cap Slope Portfolio Rolling Three-Year Annualized Style Returns



Sources: Morningstar Direct, Segal Rogerscasey

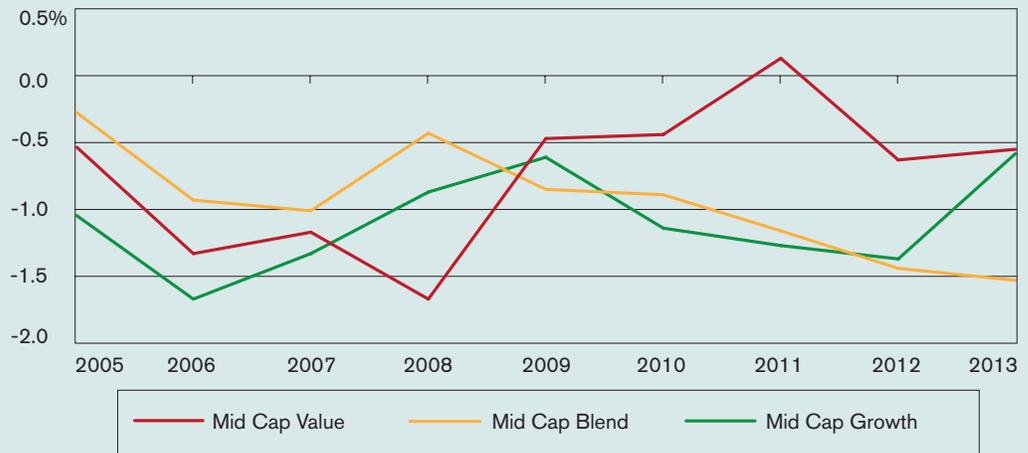
In the mid cap style, the higher-fee Value funds did better than average on a spread portfolio basis, and worse on a slope portfolio basis. Blend funds did much worse than average on a spread portfolio basis, and worse than average on a slope portfolio basis. Growth funds did worse than average on both a spread portfolio and slope portfolio basis. Study results for the mid cap styles can be seen in Graphs 4 and 5 below.

Graph 4: Mid Cap Spread Portfolio Rolling Three-Year Annualized Style Returns



Sources: Morningstar Direct, Segal Rogerscasey

Graph 5: Mid Cap Slope Portfolio Rolling Three-Year Annualized Style Returns



Sources: Morningstar Direct, Segal Rogerscasey

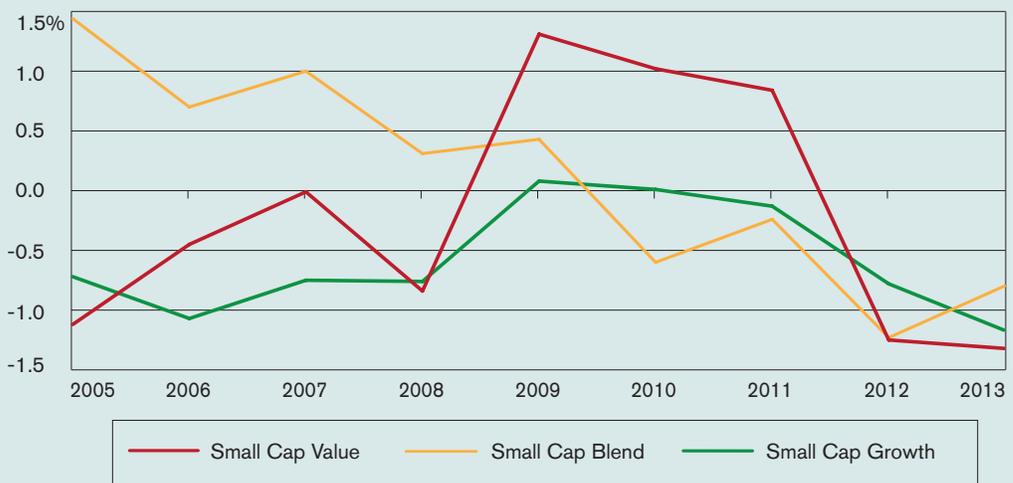
In the small cap style, high-fee Value funds did worse than average on both a spread portfolio and slope portfolio basis. Small cap Blend funds were the only sub-universe that had a positive relationship (although small) between higher fees and higher returns, both on a spread portfolio and slope portfolio basis. Growth funds did worse than average on both a spread portfolio and slope portfolio basis. Study results for the small cap styles can be seen in Graphs 6 and 7 below.

Graph 6: Small Cap Spread Portfolio Rolling Three-Year Annualized Style Returns



Sources: Morningstar Direct, Segal Rogerscasey

Graph 7: Small Cap Slope Portfolio Rolling Three-Year Annualized Style Returns



Sources: Morningstar Direct, Segal Rogerscasey

Tables showing the full study results can be seen in an appendix to this *Investment Insight* on the following webpage: <http://www.segalrc.com/Cpubs/II/price102014supp.pdf>

What All of This Means

There are several conclusions that should be clear to the reader from the results of Segal Rogerscasey's analysis presented in this *Investment Insight*.

- First, the level of fees paid to mutual fund managers across styles and capitalization buckets is meaningful relative to the ability of those managers to generate returns for investors. In short, fees matter — they are not random, at least not for the cumulative 10-year period examined.
- Second, not only do fees matter over this period, but they are consistently important. An assessment of fees — relative to other, similarly engaged firms — should be an integral part of the process of evaluating the potential for one mutual fund to provide superior net results over another.
- Finally, and this responds directly to the question at the outset, higher fees tend to result in lower net results — again, very consistently across almost every style and capitalization.

Most bluntly, if you had no knowledge other than the expense ratio, you would be best off, on average, to select funds with the lowest ratios and avoid those with the highest. Naturally, if an investor has no information other than fees, then a passive solution would be preferable, as these will likely have the lowest fees anyway. In our view, fees are only one of the many considerations an investor must evaluate in the quest for mutual funds that will outperform others within their style and asset classification. Consistency, manager tenure and experience, process and philosophy are just a few of the other areas that investors should examine. But, in the world of U.S. equity mutual funds, it is evident that you don't necessarily get what you pay for. An investor should only consider paying above-average fees when confidence in excess-return generation, through evaluation of the factors described above, is high enough to justify the price — and for this assessment, it is best to seek the assistance of a well-experienced and resourced professional. ■

Questions? Contact Us.

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