When do breakpoints give mutual fund investors a break?

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Abstract

Purpose – The purpose of this paper is to describe data assembled on all registered US investment companies on advisory fees using the NSAR filings and to analyze the impact of the structure of the advisory contracts on the fees paid to mutual funds advisors. This analysis is particularly relevant now that mutual funds have to explain the rationale for the choice of the advisory fees in their public filings.

Design/methodology/approach – The paper summarizes data on advisory fees in the NSAR filings and uses regression analysis to examine the determinants of advisory fees.

Findings – The paper summarizes salient features of the mutual fund advisory fee contracts using the NSAR database. The analysis shows that breakpoint fee schedules designed to generate savings, do not automatically translate into lower expenses for the investors.

Practical implications – When determining the renewal of an advisory contract, the board of trustees of a mutual fund will then need to assess myriad factors related to the costs and profits of the fund, including the nature of the fee schedule. Regression models provide objective measures of assessing the reasonableness of advisory fees.

Originality/value – This paper contributes to the ongoing debate on the evaluation of mutual funds advisory fees and highlights the usefulness of the NSAR filings. The debate is especially relevant given the additional SEC disclosure requirements.

Keywords Unit trusts, Advisory services, Auditor’s fees

In 2004, the Securities and Exchange Commission (SEC) adopted amendments under the Securities Act of 1933, the Securities Exchange Act of 1934, and the Investment Company Act of 1940 to improve disclosure of advisory contracts for investment companies. The amendments obligate the board of directors of mutual funds to disclose material factors that are the basis for the approval of advisory contracts. All the amendments became effective on January 31, 2006. Economies of scale are among the central issues targeted in the amendment. In particular, the SEC now requires mutual funds to provide discussions of “the extent to which economies of scale would be realized as the fund grows” and “whether fee levels reflect these economies of scale for the benefit of fund investors” (Securities and Exchange Commission, 2004). In this paper, we examine the impact of different types of advisory contracts on magnitudes of fees. Specifically, we assess whether a particular type of advisory fee contract that was designed to reflect savings from economies of scale has resulted in reduced expenses for the investors.

Our empirical analysis can be used during the process of renewing advisory contracts. When determining an advisory contract, the board of trustees of a mutual fund needs to assess a myriad of factors related to the costs and profits of the fund. Our findings illustrate that regression analysis can be used to evaluate many factors affecting fees including the nature of the fee schedule.
We rely on data we collected from the NSAR 2006 filings, which are publicly available. (Form NSAR is a reporting form used for semi-annual and annual reports of investment management companies. It is an EDGAR-only form that can be submitted in either ASCII or HTML format.) Owing to the difficulty of assembling data from NSAR filings, few studies in the past have analyzed information contained in these forms in detail. Two exceptions are Deli (2002) and Kuhnen (2004), although their results are not up-to-date enough to draw implications on the effect of the recent SEC amendments.

Suggestions that breakpoints alone be used as a “solution” for what is viewed as excessive fees[1] may have led many, including the media to use the existence of such breakpoints as a litmus test of the reasonableness or “fairness” of fees charged by a mutual fund (Zweig et al., 2004). Whether such assertions are defendable empirically will be discussed in later sections.

We begin with a brief description of the data and then discuss the empirical analysis to examine the impact of the breakpoints on mutual funds fees.

Information in the NSAR filings

The NSAR forms contain detailed information about mutual funds organized under each investment company. In addition to data on size (in net asset value (NAV)), holdings, trading activity, income, and expenses, the form also requires equity mutual funds to classify themselves into one of the following categories, according to their investment objectives and practices:

- **Aggressive capital appreciation.** Seeks short-term appreciation through high-risk investment, with little or no concern for receipt of income.
- **Capital appreciation.** Invests in moderate to high-risk securities, with little or no concern for receipt of income.
- **Growth.** Seeks long-term growth, with a moderate degree of risk. Receipt of income may be considered to some degree in selecting investments.
- **Growth and income.** Makes low-risk investments with the objective of capital growth and income production.
- **Income.** The receipt of income is the primary reason for selecting portfolios securities.
- **Total return.** Includes a varying mix of equity and debt securities in its portfolio.

Because the first and fifth categories have relatively few members, we have merged category 1 with 2 and category 4 with 5, following Kuhnen (2004). In addition, a separate category called “Bond” is created for funds that do not usually invest in equity securities.

Information contained in the NSAR filings is unique in that it includes details about the structure of advisory fee contracts, both actual and contractual fees are reported and advisory fees are reported separated from all other expenses. In addition, the funds report whether and how their fees change as their assets grow in size. These variables make the NSAR a very helpful source to examine advisory contracts. The remainder of the paper focuses on analyzing this information to assess the importance of the breakpoints.

Advisory fees are the biggest component of mutual fund expenses

Advisory fees constitute the largest portion of expenses for mutual funds, as indicated in Figure 1. Median fees paid to advisors range from roughly 0.75 percent of the fund’s assets for capital appreciation and growth funds to about 0.45 percent of the funds assets for bond funds. Median total expenses in 2006 ranged from about 0.84 percent to 1.28 percent of the fund’s assets.

Breakpoint fees and the weighted average contractual rate

A common method for determining advisory compensation is to base the fee on the fund’s current asset level. While most funds award fees as a fixed percentage of total assets, some
funds have adopted a breakpoint schedule where the contractual fee decreases as the fund size increases. Figure 2 is an illustration of this type of contract, known as a breakpoint fee contract. According to this particular example, as long as the fund’s assets do not exceed $2.5 billion the investment advisor is compensated 75 cents annually for every $100 it manages. If the fund were $1 billion in size, for instance, the advisor would be paid $7.5 million in return for its services.

If the mutual fund’s assets grew past $2.5 billion, the rate at which the advisor is compensated will change. As an example, assume the fund has now increased its total assets to $3 billion. Then the advisory compensation is calculated as follows. For the first $2.5 billion, the advisor is paid $18.75 million (0.75 percent of $2.5 billion). For the additional

**Figure 1** Median advisory fees as a portion of total expenses

![Median Advisory Fees as a Portion of Total Expenses](image)

**Figure 2** A total return fund belonging to a large mutual fund family

![A Total Return Fund Belonging to A Large Mutual Fund Family](image)
$500 million of assets above $2.5 billion, the advisor is compensated $3.5 million (0.70 percent of $500 million). Therefore, the total compensation equals $22.25 million or about 0.74 percent of the fund’s total assets. An investor owning a share of this mutual fund worth $100 would now pay roughly 74 cents in advisory fees annually.

Note that the amount of advisory fees actually paid by the investor in the example above is the same as if the fund had charged a constant fee of 0.74 percent. Let us refer to this flat rate that would generate the same revenue for the advisor under a breakpoint fee contract as the “weighted average contractual rate”. The weighted average always lies between the highest and lowest applicable fee levels (e.g. 0.70 percent < 0.74 percent < 0.75 percent from the preceding example). It is useful as a tool for comparing breakpoint advisory fee contracts against single fee rates. For instance, a $3 billion fund under the breakpoint contract depicted in Figure 2 would pay less in fees than a flat fee contract of 0.75 percent but more than a flat fee contract of 0.72 percent.

Which funds have advisory fee breakpoints?

Table I illustrates the variation in the percentage of funds employing breakpoints by investment style and asset size. Overall, breakpoint advisory contracts are most frequently used by growth funds, with 41.9 percent of funds in this category reporting breakpoint fees. Across all investment styles, funds in the largest size-category with assets over $500 million are usually most likely to have breakpoints. The relationship between asset size and the probability of breakpoint contracts, however, is not strictly monotonic. Although the likelihood of breakpoint fees increases when moving from asset size below $50 million to assets between $50 million and $150 million, there is a decline in the probability of breakpoint fees in the $150 million to $500 million asset category across all investment styles.

What determines the level of advisory fee for a given fund?

We use the weighted average contractual fee rate to compare fees charged by funds with breakpoints against other funds that charge simple flat fees. Note that for funds with flat fees, the flat rate is equal to the weighted average contractual fee rate by definition. To control for varying fee rates charged across mutual funds with different investment styles, we present fee comparisons separately for different types of investment styles as defined in the form NSAR.

Based on 2006 data, Figure 3 indicates that for four out of the five fund categories, funds without fee breakpoints actually pay less per dollar invested on advisory fees than funds with breakpoints. The magnitude of the difference is one to four basis points. Breakpoints appear to be associated with lower fees only for growth funds, the difference being about 1.4 basis points. It is interesting to note that the standard deviation of weighted average fees is smaller for breakpoint contracts than for flat fee contracts across all fund categories. The same conclusion can be drawn using other measures of spread such as the inter-quartile range.

We analyze the determinants of advisory fees using a multiple regression (with robust standard errors) presented in Table II. To construct an estimate for each fund’s performance,
data from the 2005 and 2006 NSAR filings were matched using the investment company and mutual fund names. The performance variable was calculated as a percentage return as follows:

\[
\text{Performance} = \frac{2006\text{NAV}/\text{share} - 2005\text{NAV}/\text{share} + \text{Dividends} \& \text{Distributions}/\text{share}}{2005\text{NAV}/\text{share}}.
\]

Because of inconsistencies in filings across years, this performance measure could be estimated for fewer than half of the 2006 mutual funds. The regression indicates that mutual funds that focus on short-term, high-risk investments tend to charge higher advisory fees. Larger funds have lower advisory fees per dollar invested, as weighted average fees decrease at about 1.6 basis points for every additional billion dollars in fund size. An increase in percentage return (performance) by 10 percent is accompanied by an increase in advisory fees of about 4 basis points. However, among funds with the same investment style and asset size, having fee breakpoints does not appear to significantly reduce advisory fees paid by the investor. Although fees charged by funds with breakpoints tend to be about one basis point lower than those charged by funds with flat fees (controlling for other fund features), the effect is not statistically distinguishable from zero.
When will the type of contract matter?

A closer examination of the data reveals that advisory contracts with breakpoints may lower expenses for the investor if the breakpoints are set such that the fund’s assets actually reach higher breakpoint asset levels. Table III presents results from a regression similar to the one in Table II, but with separate indicator variables for different “effective breakpoint” levels. Returning to the example in Figure 2, a fund with assets below $2.5 billion would have its effective breakpoint level its first breakpoint. A fund with assets between $2.5 billion and $5 billion would have its second breakpoint level as its effective breakpoint level its second breakpoint. Continuing in this fashion, we would say the fund in Figure 2 has achieved its last breakpoint when its assets have grown past $10 billion. Note that because different funds may have different numbers of steps in their breakpoint fee schedule, the label “Highest Breakpoint” may signify anything from the second to the eleventh step of a breakpoint fee contract.

Results in Table III indicate that there is little evidence to support cost savings due to breakpoint fees when the funds’ current assets fall in the first of several effective breakpoint levels. Only when the funds’ assets surpass their highest fee breakpoint do weighted average contractual fee rates become statistically smaller than those charged by funds with flat fees. The magnitude of the cost savings in this case is around 8.3 basis points.

The tabulation in Table IV reveals that 12 to 19 percent of funds with breakpoint fees have reached their highest effective breakpoint level. In contrast, the percent of funds in their first or second breakpoint ranges from 70 to 80 percent.

Conclusion

Analysis of mutual fund expenses as reported in the 2006 NSAR filings reveals that breakpoint advisory fee contracts do not guarantee lower fees. A mutual fund would then examine a host of factors including the risk of its portfolio and performance to assess the fees paid to its investment advisor.

<table>
<thead>
<tr>
<th>Table III</th>
<th>Coefficient</th>
<th>Robust SE</th>
<th>t-statistic</th>
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<tbody>
<tr>
<td>Capital appreciation</td>
<td>0.288</td>
<td>0.014</td>
<td>20.990</td>
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<tr>
<td>Growth</td>
<td>0.272</td>
<td>0.015</td>
<td>17.700</td>
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<td>Income</td>
<td>0.118</td>
<td>0.018</td>
<td>6.420</td>
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<tr>
<td>Total return</td>
<td>0.154</td>
<td>0.019</td>
<td>8.100</td>
</tr>
<tr>
<td>NAV (billion)</td>
<td>-0.014</td>
<td>0.002</td>
<td>-6.740</td>
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<tr>
<td>1st breakpoint</td>
<td>0.003</td>
<td>0.012</td>
<td>0.210</td>
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<tr>
<td>2nd breakpoint</td>
<td>0.033</td>
<td>0.017</td>
<td>1.960</td>
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<td>3rd breakpoint</td>
<td>-0.043</td>
<td>0.025</td>
<td>-1.730</td>
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<td>Higher breakpoint</td>
<td>-0.021</td>
<td>0.021</td>
<td>-0.980</td>
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<tr>
<td>Last breakpoint</td>
<td>-0.083</td>
<td>0.017</td>
<td>-4.970</td>
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<tr>
<td>Performance</td>
<td>0.004</td>
<td>0.000</td>
<td>13.650</td>
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<tr>
<td>Constant</td>
<td>0.508</td>
<td>0.011</td>
<td>46.720</td>
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Notes: Observations = 3,746; R² = 0.1518

<table>
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<tr>
<th>Table IV</th>
<th>Effective breakpoint level</th>
<th>1st (%)</th>
<th>2nd (%)</th>
<th>3rd (%)</th>
<th>4th (%)</th>
<th>5th (%)</th>
<th>6th (%)</th>
<th>7th (%)</th>
<th>8th (%)</th>
<th>9th (%)</th>
<th>10th (%)</th>
<th>Highest (%)</th>
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<td>Bond</td>
<td>62.48</td>
<td>12.65</td>
<td>8.06</td>
<td>2.80</td>
<td>0.59</td>
<td>0.25</td>
<td>0.08</td>
<td>0.08</td>
<td>0.17</td>
<td>0.00</td>
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<td>Capital appreciation</td>
<td>65.60</td>
<td>14.78</td>
<td>4.73</td>
<td>1.55</td>
<td>1.06</td>
<td>0.19</td>
<td>0.00</td>
<td>0.00</td>
<td>0.19</td>
<td>0.00</td>
<td>11.88</td>
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<tr>
<td>Growth</td>
<td>56.73</td>
<td>14.33</td>
<td>6.88</td>
<td>1.72</td>
<td>0.72</td>
<td>0.43</td>
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<td>Income</td>
<td>59.55</td>
<td>13.92</td>
<td>3.56</td>
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<td>Total return</td>
<td>57.19</td>
<td>17.19</td>
<td>4.21</td>
<td>1.40</td>
<td>0.70</td>
<td>0.00</td>
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<td>19.30</td>
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Note


References


Further reading


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