Asset Liquidity and Mutual Fund Management Fees: Evidence from Closed-End Mutual Funds

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Abstract

In this study, we assess whether the liquidity of a closed-end mutual fund's investments (measured based on the fund's fair value disclosures) is related to the management fee charged by the fund's investment advisor. We posit that there will be incremental effort on the part of the advisor to identify and analyze less liquid investments, and that fund investors would be willing to pay for these incremental costs to access less-liquid segments of the market. Consistent with this expectation, we find a significantly positive relationship between the percentage of level 3 assets (the least liquid securities) and management fees. However, we do not find a significant relationship between level 2 securities (which are more liquid than level 3, but less liquid than level 1) and management fees. Overall, our results suggest that investments in the least liquid securities result in higher management fees.

Keywords: Closed-end mutual funds, management fees, Liquidity, Fair value disclosures

1. Introduction

After decades of steady growth, the mutual fund industry has become a significant financial force in U.S., managing $9.5 trillion of assets for roughly half the nation's households at year-end 2005 (Investment Company Institute Fact Book 2006).As most mutual fund fees are based on the size of the fund, these funds have generated substantial revenue for the industry's main service provider - "fund advisers" (sometimes also called "fund managers").The fees paid by mutual funds for portfolio management is called the management fee or advisory fee. There has been a long-running debate between mutual fund industry and regulators over the appropriate size of management fees (e.g., Rehak 1998, Singletary 1999, SEC 2000). Despite the ongoing public scrutiny of mutual fund management fees, research examining the economic determinants of these fees has been limited.

In this study, we examine the effect of asset liquidity on mutual fund management fees in the closed-end fund industry. We chose to use closed end mutual funds to examine this issue for two main reasons. First, compared to open-ended mutual funds, closed-end funds tend to hold more illiquid investments (such as the private placement stock studied by Malkiel 1977 or the restricted stock examined by Booth et al. 2012). One of the main rationales for the existence of closed-end funds is that the fund structure and the exchange listing of the many closed-end fund shares provide a relatively liquid means of investing in illiquid securities (Cherkes et al. 2009). Second, Fama and Jensen (1983a, 1983b) argue that the pressure of redemption of open-ended fund shares from investors serves as a disciplining mechanism for fund advisors (Note 1), but is absent for closed-end fund advisors. Consistent with this notion, Deli (2002) finds that the management fees of closed-end funds are larger than those of similar open ended funds. Investors appear willing to incur these higher fees to gain access to relatively illiquid markets (Cherkes et al. 2009). In this paper, we seek to assess whether the liquidity of the investment held by the fund is associated with the level of management fees charged to the fund.

The Financial Accounting Standards Board (FASB) recently began requiring financial statements to disclose the type of input used to value assets reported at fair value (Accounting Standards Codification (ASC) 820). These disclosures provide a reasonable proxy for the degree of liquidity of the securities held by the fund. The broad categories of valuation methods are termed level 1, 2 and 3 valuation inputs. Level 1 valuation methods are based on readily-available market prices of actively traded securities. Level 2 methods are used when the security in question is not actively traded, but where there are other market-determined criteria that can be used to estimate the value of the security (e.g., market-based yield to maturity for similar bonds). Finally, level 3 valuation criteria are those that are neither level 1 nor 2. These are securities which are fairly subjective to value and for which the computation of fair value depends upon estimates such as the amounts and variability of future cash flows, as well as appropriate discount rates.

These valuation disclosures levels could be viewed as a proxy for the liquidity of the securities held by the fund, with level 2 and 3 securities being less liquid than level 1 securities. Level 1 securities are actively traded, and so are highly liquid. Level 2 securities may be securities that are not actively-traded, but for which there are benchmark securities (such as bond with similar bonds ratings and interest payments) that are actively traded. Level 2 securities thus are less liquid than those valued using level 1 inputs. Level 3 securities are likely to be the least liquid because there are no market measures available to assess their valuations, suggesting that the security is rarely traded at all.

The relationship between the liquidity of a fund's assets and management fees may be related to the relative efficiency of the markets in which the fund invests. Because highly-liquid, actively traded securities are likely to be followed by many market participants, the information available on these securities is likely to be impounded into the security price more readily than if the security were illiquid (i.e., the market for liquid securities is likely to be more efficient than the market for illiquid securities). Because the market for less liquid assets may have less information available, the fund may need to complete more extensive research before investing, suggesting that less liquid assets would be associated with a higher management fee. Investors in the fund may be willing to pay these incremental fees to gain access to these less liquid areas of the market.

We examine a sample of 566 closed-end funds to assess whether management fees are associated with the value of securities invested in less liquid markets. We find that higher percentages the most illiquid securities (i.e., level 3 securities) are associated with higher fund management fees (compared to highly liquid, level 1, securities). However, we do not find the fund management fees differ based on level 2 securities (compared to level 1 securities). Overall, our results suggest that fund management fees are higher when funds invest in illiquid securities that are traded in illiquid markets (i.e., level 3 securities), but are not associated with less liquid securities for which there is market-based data available (i.e., level 2 securities).

We contribute to the literature in two important ways. First, this study contributes to the literature on mutual funds management fees by providing a new perspective. To the best of our knowledge, this is the first empirical study examining the determinants of mutual fund management fees from an asset liquidity perspective. Second, this study uses a novel measure of asset liquidity by taking advantage of the new mandatory disclosure on fair value levels of assets.

In the remainder of this paper, we first summarize the background literature and develop testable hypotheses. We then present the data we gathered and the methods used to analyze the data, followed by the results of our analyses. The paper closes with a summary of our study and the implications of our findings.

2. Background and Hypothesis

2.1 Mutual fund management fees

Mutual funds are portfolios of securities that are held by the fund on behalf of its investors. The fund contracts with various service providers to provide portfolio management, distribution, custody and other service for the fund. The portfolio manager is typically the recipient of the largest amount of fees paid by the fund, and these management fees are usually based on the assets held by the fund.

Prior literature on the determinants of mutual fund management fees is limited. Most of the prior studies of mutual funds fees (e.g. Ferris and Chance 1987, Chance and Ferris 1991, Malhotra and McLeod 1997, and Dellva and Olson 1998) only look at the aggregate level of fees by using the expense ratio in their models. Other studies (Christoffersen 2001, Lesseig et al. 2002, Deli 2002, and Golec 2003) considered management fees separately. The common determinants of management fees examined in these studies include fund assets, fund family size, fund age and fund performance. In general, prior literature finds that management fees are positively associated with fund assets and fund performance (e.g. Christoffersen 2001 and Lesseig et al. 2002), but negatively associated with fund

age (e.g. Christoffersen 2001 and Golec 2003). The findings about fund family size are mixed. Christoffersen (2001) finds a positive relationship between fund family size and management fee, while Lesseig et al. (2002) and Deli (2002) find a negative relationship between family size and management fees. Examining additional variables, Deli (2002) finds that management fees are positively associated with fund turnover rate, percentage of equity securities in a fund, and percentage of foreign assets in a fund.

Theories to explain management fees are generally premised on the idea that certain fund characteristics lead to incremental effort on the part of the fund manager. For example, Deli (2002) argue that the positive association between the percentage of foreign assets and management fee is due to the difficulty of accessing information related to foreign securities, leading to incremental effort obtain this information. Christoffersen (2001) and Lesseig et al. (2002) argue that better performance requires more incremental efforts, which in turn leads to higher management fees.

2.2 Closed-end funds vs. open-ended funds

Broadly speaking, there are two major types of mutual funds: Open-end mutual funds and closed-end mutual funds. Purchases and sales of **open-ended** mutual funds are made between the fund and the investing public (either directly or through an intermediary such as a broker). In an open-ended mutual fund, the fund itself provides the market for the fund's shares. Open-ended mutual funds are subject to the potential for large redemptions and/or large funds inflows. To be able to meet these redemption requests and/or invest these funds inflows, open-ended mutual funds tend to invest in highly liquid securities that can be readily bought and sold to match fund inflows and outflows.

Closed-end mutual fund shares are initially issued to the investing public by the fund. However, once the closed-end fund shares have been issued, these shares are subsequently purchased and sold among the fund's shareholders. The limited number of shares issued by closed-end funds allows these closed-end funds to invest in less liquid securities because (unlike open-end funds) the closed-end fund does not have to redeem shares, and thus will not need to sell less liquid assets to meet shareholder redemption requests. Similarly, because the closed-end fund size will not increase as a result of inflows to the fund, the fund has less concern finding new securities in which to invest additional funds coming from fund investors. For both of these reasons, closed-end funds are more likely to invest in less-liquid securities, which makes the closed-end fund market is an appropriate setting in which to examine the relationship between asset liquidity and mutual funds management fees.

Deli (2002) predicts that the economic rationale behind management fees might be stronger in closed-end funds than in open end funds due to the weaker control environments associated with closed-end funds. This prediction is based on Fama and Jensen (1983a, 1983b), who argued that the pressure of redemption of fund shares from investors serves as a disciplining mechanism for open-fund advisors, but is absent for closed-end fund advisors To compensate for the absence of that discipline force, management fees in closed-end funds tend to be more related to fund characteristics and performance than those of open ended funds. This is another reasons that closed-end funds are an appropriate market in which to examine the determinants of fund management fees.

2.3 Hierarchy of three levels of valuation as a proxy of asset liquidity

To allow the market to assess the nature of fair value measures, Accounting Standards Codification (ASC) 820 requires companies to disclose the types of inputs used to determine the fair value of its assets and/or liabilities reported in their financial statements. ASC 820 defines a hierarchy of three levels of valuation-method inputs, with direct, market-based inputs (level 1) being the preferred alternative when such information is available. In the absence of this direct information, financial statement preparers should use indirect market-based measures (Level 2) or other measures (level 3). Given the nature of the inputs used to value securities, we believe the nature of the valuation inputs provides a reasonable proxy for the liquidity of the securities held by the fund.

Level 1 valuation inputs are the most objective and are defined as follows: "Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date" (ASC 820, ¶10-35-40). To compute the valuation of a security using level 1 inputs, the fund simply multiplies the quoted market price per share by the number of shares the fund holds. Because assets valued using level 1 inputs have a clearly defined market value, these level 1-valued assets are the most liquid types of securities.

Level 2 valuation inputs are less objective than level 1 inputs, and are defined in ASC 820 (¶ 10-35-47) as: "inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly." Examples given for level 2 inputs are prices of similar securities in active markets, prices for the same securities in inactive markets and market-observable interest rates and yield curves. A level 2 security could be a

bond that is not actively traded, but for which a reasonable estimate of fair value could be computed from market-determined information, such as yield to maturity of similar bonds. These level 2 securities lack an active market price, and thus are less liquid that level 1 securities.

Level 3 valuation inputs are the least objective category of valuation input, and are defined as: "unobservable inputs for the asset or liability" (ASC 820 ¶ 10-35-52). Assets valued using level 3 inputs would include items measured using discounted cash flows, when these cash flows are based non-market measures. ASC 820 indicates that level 3 inputs should only be used "to the extent that observable inputs are not available" (ASC 820 ¶ 10-35-53).Given the absence of observable inputs for these securities, assets valued using level 3 inputs are likely to be the least liquid type of security.

2.4 Hypothesis

Mutual funds pay management fees to portfolio managers to compensate these managers for their efforts in conducting research into potential investments, choosing when they buy and sell investments, and the manager's success at making fund investment decisions. The theory in prior literature (e.g., Deli 2002) suggests that management fees are higher when the advisor incurs incremental costs in investment evaluation. To research these less liquid securities, the manager would need to obtain information which may not be not readily accessible due to the illiquid nature of the security (Note 2). Also, fund investors may be willing to pay for this incremental effort to gain access to less liquid segments of the securities market. Therefore, we posit that there will be a positive relationship between the illiquidity of a fund's assets and the fund's management fee. This is the hypothesis of our study, and is stated as follows:

> **H1:** There is a positive relationship between the percentages illiquid securities (i.e., level 2 and 3 assets) held by a mutual fund and the fund's management fee.

3. Research Methods

3.1 Sample

Using the Morningstar Direct database, we identified 630 closed-end mutual funds as of the end of 2010.We were unable to locate the fund's annual report for 48 of these fund. Because the annual report was necessary to hand-collect each fund's fair value hierarchy information, we lost these 48 funds from our sample. An additional 16 funds are eliminated as a result of missing data in the Morningstar database. This process resulted in a final sample size of 566 closed-end funds used in our study.

3.2 Testing techniques

To test our hypothesis 1, we ran the OLS regression model below:

$$LOG\_MANAGEMENT\ FEE_i = \beta_0 + \beta_1 \%LEVEL2_i + \beta_2 \%LEVEL3_i + \beta_3 LOG\_FUNDAGE_i + \beta_4 DIVIDEND_i + \beta_5 TURNOVER_i + \beta_6 PERFORMANCE_i + \beta_7 FOREIGNPERC_i + \beta_8 BOND + \beta_9 STOCK_i + \beta_{10} LOG\_FAMILYSIZE + \beta_{11} LOG\_FUNDASSETS_i + \varepsilon_i (1)$$

The dependent variable, LOG_MANAGMENT FEE is the log of management fee reported in a fund's 2010 annual report (Note 3).

Our main test variables are %LEVEL2 and % LEVEL3, which represent the percentages of the fund's asset valued using level 2 and level 3 valuation inputs, respectively. We hand-collected the total assets of each fund valued using level 1, 2 and 3 inputs from each fund's 2010 annual report. The percentages were computed by dividing the total dollar amount of assets in the category by the total dollar amount of assets in all the categories.

We also included in Equation (1) several control variables (Note 4), which are widely used in prior studies related to the valuation of closed end funds:

1) LOG_FUNDAGE, measured as log of fund's age. Prior literature (e.g., Christoffersen 2001 and Golec 2003) shows that older funds tend to have lower management fees.

2) DIVIDEND (Note 5), measured as a fund's dividend yield in year 2010. Pontiff (1996) provides evidence that higher dividend yields reduce arbitrage costs, and that the market, therefore, views the fund as more valuable. Therefore, we predict that shareholders of higher dividend yield funds are more willing to pay higher management fees.

3) TURNOVER, measured as a fund's portfolio turnover (%) in year 2010. Ippolito (1992) and Edelen (1999) argue that fund advisors with better quality of information tend to engage a greater amount of

information-motivated trading. Consistent with this argument, prior literature (e.g., Deli 2002) shows a positive relationship between portfolio turnover and management fee (Note 6).

4) PERFORMANCE, is a fund's yearly return (%) in year 2010. Christoffersen (2001) and Lesseig et al. (2002) argue that better performance requires more incremental effort, which in turn leads to higher management fees.

5) FOREIGNPERC, is the percentage of foreign assets in the fund as the end of year 2010. Deli (2002) argues that a higher percentage of foreign assets leads to higher management fees because of the difficulty of accessing information regarding these foreign assets.

6) BOND is a dummy variable which is coded as one if a fund primarily invests in bonds and zero otherwise. STOCK is a dummy variable which is coded as one if a fund primarily invests in stocks and zero otherwise Deli (2002) provides evidence that equity funds on average have higher management fees compared to debt funds. The rationale behind this finding is that the private information obtained by equity fund managers is more valuable than that about debt securities held by debt fund advisors.

7) LOG_FAMILYSIZE, the log of number of funds in a fund family. Prior literature documents mixed findings about fund family size. While Christoffersen (2001) find a positive relationship between fund family size and management fee, Lesseig et al. (2002), Deli (2002), and Khorana et al. (2008) find a negative relationship between fund family size and management fees.

8) LOG_FUNDASSETS, the log of a fund's total assets at the end of year 2010. Prior literature (e.g. Christoffersen 2001, and Lesseig et al. 2002) finds that management fee is positively associated with fund assets.

4. Empirical Results

4.1 Descriptive statistics and analysis

Table 1 presents descriptive statistics of all the variables used in Equation (1) for the 566 closed-end funds in our sample. The maximum MANAGEMENT FEE is approximately $35 million with a mean of $3.048 million and a median of $1.712 million (Note 7). The means of the percentage of assets valued using level 2 input (%LEVEL2) and level 3 inputs (%LEVEL3) are 69.5%, and 2.6%, respectively. These results indicate that level 2 assets are the largest class of closed-end mutual fund assets (Note 8). The average age of the funds is 13 years. Dividend yield ranges from 0% to 12.8%, with a mean of 5.57%. Portfolio turnover ranges from 0% to 1516%, with a mean of 52%. Foreign assets average 14.519% of total assets, and more than half of the funds in our sample do not have any foreign assets. Bond funds, stock funds, and other (mainly balanced) funds account for 67.5%, 25.4% and 7.1% of our sample respectively. Fund family size varies, with a mean of 52 funds in a family, and a median of 28 funds. The median fund in the sample has a size of $205 million with a maximum to $3.596 billion.

Table 2 presents a correlation matrix. The first column of this table indicates that many of the variables proposed in our Equation (1) are significantly correlated with the management fee. For all the significant correlations between control variables and management fee, the directions of the correlations are consistent with our prediction. In addition, as illustrated in Table 2, many of the control variables are correlated with one another. As such, we examine all the determinants further by using multivariate analysis as follows.

4.2 Multiple regression results

Table 3 presents our test of hypothesis and provides multiple regression results for Equation (1) with LOG_MANAGEMENT FEE as the dependent variable. The adjusted R square of our model is 92.83, which indicates that 92.83% variation of management fee is explained by our model.

Looking at the individual variables in the model, the percentage of level 2 assets is not significantly associated with the management fee, which is contrary to H1. However, the coefficient on the percentage of f level 3 assets is significant (p-value<0.05) and positive, suggesting that funds with higher percentages of the least liquid securities (level 3 assets) have higher management fees. These results provide mixed support for H1. Of the control variables in the model, all the significant associations with management fee are consistent with our predictions.

The results of our multivariate analysis show that management fees increase as the percentage of highly illiquid (level 3) securities increases (relative to level 1 securities).However, we do not find a significant difference between level 1 and level 2 securities in terms of their effects on management fees. This might be related to the broad differences in liquidity that may exist with the level 2 category of securities. These level 2 securities may be very illiquid (traded rarely at all), or may be only slightly less liquid than level 1 securities. In addition, while the level 2 securities themselves may not be highly liquid, they may in a market segment in which more liquid securities are

available (because there is market-based data available for similar securities). As a result, fund investors may be less willing to pay incremental fees for to access these more liquid segments of the market.

4.3 Limitations

The main limitation of our study is the measurement of illiquid securities. While the level of valuation input is considered to be a useful proxy for the liquidity of the securities, level 2 securities could consist of different levels of liquidity. Some of these securities could trade just slightly less frequently than actively traded securities, while others may not trade at all.

5. Conclusion

Because mutual funds play an increasingly important role in financial industry, and because management fees directly reduce the returns on these funds, mutual funds management fees are an important topic of study. This paper examines the determinants of mutual funds management fees from the perspective of the liquidity of the fund's assets. We use closed-end funds to examine this issue mainly because these funds typically invest a large percentage of their assets in securities of lower liquidity.

Financial reporting rules for closed-end mutual funds were recently expanded to include a requirement that funds disclose the total dollar amount of assets valued using three types of valuation inputs, ranging from level 1 (directly observable inputs) through level 2 (indirectly observable inputs) to level 3 (unobservable inputs). These disclosures provide a reasonable proxy for the liquidity of the securities in which the closed-end fund invests.

We find that management fees increase as the percentage of highly illiquid (level 3) securities increases. This result supports the idea that there is incremental effort necessary to analyze highly illiquid securities, and that funds investors are willing to pay for this incremental effort, leading to higher management fees. However, we do not find that the percentage of level 2 securities is significantly associated with management fees. This result suggest that, even if these level 2 securities require incremental effort, the investors may not be willing to pay the incremental cost when alternative securities are available in the market. Overall, these results suggest that only the most illiquid securities are significantly associated with management fees.

Our results are of potential importance to investors, regulator or academics given that half of US households own mutual funds and management fees influence fund performance and fund discount/premium.

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Notes

Note 1. However, Barber et al. (2005) find that while funds flows (of which redemptions are one type) are associated with front end loads, these fund flows were not found to be associated with operating expenses (of which the management fee is the largest). Barber et al. (2005) find these results "surprising" (p. 2095).

Note 2. Consistent with this notion, Booth et al. (2012) find evidence that the fees that funds pay to auditors are higher when the fund invests in restricted securities (which can be considered a measure of asset liquidity).

Note 3. The log of the dependent variable (and some of the independent variables) is used to allow for economics of scale in these fees.

Note 4. The data on all control variables come from Morningstar.

Note 5. We also assessed whether the fund had a managed distribution policy (following Johnson et al. 2006 and Wang and Nanda 2011). We found very few funds had these policies in 2010, perhaps reflecting the low interest rate environment.

Note 6. Higher management fee is paid to compensate better quality of information (incremental analysis hypothesis).

Note 7. These results suggest a non-normal distribution of management fee which, in addition to the economies of scale (discussed above) is why we use the log of management fee in our model 1.

Note 8. Note that the presence of a large percentage of level 2 securities is also consistent with the notion that closed-end mutual funds tend to invest in less liquid securities.

Table 1. Descriptive statistics

Descriptive statistics of key variables (sample size N=566)

Variable	N	Mean	Std Dev	Median	Minimum	Maximum
MANAGEMENTFEE	566	3048.016	3812.154	1712.000	67.000	34883.000
LEVEL2PERC	566	0.695	0.405	0.967	0.000	1.000
LEVEL3PERC	566	0.026	0.108	0.000	0.000	0.844
AGE	566	13.360	10.154	11.000	1.000	83.000
DIVIDEND	566	5.570	2.798	6.140	0.000	12.833
TURNOVER	566	52.573	100.992	26.000	0.000	1516.000
PERFORMANCE	566	14.519	12.844	12.084	-1.761	53.796
FOREIGNPERC	566	14.792	28.054	0.000	0.000	100.000
BOND	566	0.675	0.469	1.000	0.000	1.000
STOCK	566	0.254	0.436	0.000	0.000	1.000
FAMILYSIZE	566	52.224	52.305	28.000	1.000	132.000
FUNDASSETS	566	453671.929	497997.661	276354.000	17656.000	3596320.000

MANAGEMENTFEE is the management fee (in thousands) reported in a fund's 2010 annual report.

%LEVEL2 is the percentage of fair value of level2 assets reported in a fund's 2010 annual report.

%LEVEL3 is the percentage of fair value of level3 assets reported in a fund's 2010 annual report.

AGE is a fund's age.

DIVIDEND is a fund's dividend yield (%) in year 2010.

TURNOVER is a fund's portfolio turnover (%) in year 2010.

PERFORMANCE is a fund's yearly return (%) in year 2010.

FOREIGNPERC is the percentage of foreign assets in a fund as the end of year 2010.

BOND is a dummy variable coded as one if a fund only invests in bonds and zero otherwise.

STOCK is a dummy variable coded as one if a fund only invests in stocks and zero otherwise.

FAMILYSIZE is number of funds in a fund family.

FUNDASSETS is a fund's total assets (in thousands) at the end of year 2010.

Table 2. Spearman correlation among key variables

Variable	LOG of MANAGEMENT FEE	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
LEVEL2PERC (2)	-0.23***										
LEVEL3PERC (3)	0.12***	-0.23***									
LOG_FUNDAGE (4)	-0.14***	0.18***	-0.04								
DIVIDEND (5)	0.04	0.38***	0.15***	0.05							
TURNOVER (6)	0.24***	-0.48***	0.3***	-0.19***	0.01						
PERFORMANCE (7)	0.28***	-0.74***	0.29***	-0.16***	-0.3***	0.54***					
FOREIGNPERC (8)	0.28***	-0.55***	0.19***	-0.1**	-0.26***	0.49***	0.65***				
BOND (9)	-0.25***	0.74***	0.03	0.2***	0.59***	-0.32***	-0.67***	-0.51***			
STOCK (10)	0.23***	-0.7***	-0.06	-0.14***	-0.6***	0.22***	0.58***	0.46***	-0.84***		
LOG_FAMILYSIZE (11)	-0.06	0.48***	-0.19***	-0.1**	0.12***	-0.44***	-0.57***	-0.4***	0.45***	-0.37***	
LOG_FUNDASSETS (12)	0.94***	-0.13***	0.09**	-0.03	0.11***	0.17***	0.19***	0.16***	-0.12***	0.11**	-0.04

All variables are defined in Table 1. (*), (**), (***) indicates significance at the 0.10, 0.05, and 0.01 levels, respectively.

Table 3. Multivariate analysis

Dependent variable: Log of management fees

Variables	Pred. Signs	Estimated Coefficients	p-value	
INTERCEPT		-4.5557	<.0001	***
LEVEL2PERC	+	0.0728	0.2976	
LEVEL3PERC	+	0.2661	0.0497	**
LOG_FUNDAGE	-	-0.1478	<.0001	***
DIVIDEND	+	0.0080	0.2334	
TURNOVER	+	-0.0002	0.0603	*
PERFORMANCE	+	0.0031	0.0616	*
FOREIGNPERC	+	0.0030	<.0001	***
BOND	-	-0.2626	<.0001	***
STOCK	+	0.0808	0.1997	
LOG_FAMILYSIZE	?	0.0348	0.0005	***
LOG_FUNDASSETS	+	0.9762	<.0001	***
N		566		
Adj R-Sq		0.9283		

All variables are defined in Table 1. (*), (**), (***) indicates significance at the 0.10, 0.05, and 0.01 levels, respectively.