

Mutual Fund Fee Structures and Broker Compensation

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The mutual fund fee structure varies substantially across funds, a major variable being whether a contract imposes a fixed fee or marginal fee structure. This paper examines how the use of a fee structure affects broker compensation, investor investment decisions and broker benefits. Theory suggests that marginal fee contracts are the results of either economies of scale or non-linear fund performance. The intent of this study is to understand if the fee structure framing has a significant economic effect on broker compensations. Furthermore, to understand if fund inflows as well as fund performance are directly influenced by fee structure.

Key Words: Mutual fund; Broker; Governance; Fees.

JEL Classification Numbers: G2,G3,J3.

1. INTRODUCTION

There is significant dispersion in mutual fund investor fee structures for the largest fund families. Mutual fund investors can invest in funds with combinations of fees (fee structures) including Front-end loaded fees, back-end loaded fees, 12b-1 fees, redemption fees, exchange fees, purchase fees and account fees. These fees can be accessed marginally; meaning the value of assets an investor has under management is inversely related to the percentage of fees paid by the investor. Fees can also be a fixed rate for all investors regardless of the amount of assets under management.

Fund managers may engage in specific fee structures for self-serving reasons. If differences in fund characteristics affect the extent of fund manager services, fee structures will differ cross-sectionally. Several studies indicate that there is an agency conflict between fund managers and investors (e.g., Golec (1992), Chevalier and Ellison (1997), Khorana et al. (2005)). We argue that this conflict induces various mutual fund manager fee structures. For example, even though a manager's responsibility is to maximize

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the value of the mutual fund, he may engage in fee structure selection to realize increased fee gains based on the potential size, objective and performance of the mutual fund. Larger funds, popular objective funds and well-performing funds increase new inflows and, hence, fees to the fund. Mutual fund managers can further increase fees from these types of funds with the fee structure. Likewise, fund managers may trade, even if the trade is *ex ante*, value-decreasing funds for investors because trading signals the possession of information-generating skills (Dow and Gorton (1997)) and trading induces volatility of net assets, which allows for undetected consumption of perquisites (Barclay, Holderness, and Pontiff (1993)).¹

In contrast, fund managers may construct mutual fund fee structures in a genuine effort to benefit investors. Chen et al. (2004) finds that there are economies of scales for mutual fund complexes that share information across mutual fund categories. These economies of scales effect fund return performance. However, Chen et al. (2004) does not analyze the impact on mutual fund expenses/ fees. If mutual fund managers can benefit from economies of scale, then the selection of the fee structure can reflect the fund managers' ability to pass these cost savings on to investors. Furthermore, establishing an active marginal fee structure is based on the belief that the fund manager has the capacity to lower cost with more funds under management at the fund level and pass these efficiency savings to investors. Conversely, if the fund objective or size cannot benefit from economies of scale, then a passive fixed fee structure is chosen (Baker et al. (1988)). However, despite varying fee structures, each fund manager utilizes known information to the benefit of his or her investors.

Despite the potentially costly effect of fee structure on investor wealth and the impact to broker compensation, very little is known about why fee structures are selected and what determines the differences in the cross-section of average marginal fee structure among mutual funds. Previous papers examine pay compensation strategies and their efforts to incentivize managers (e.g., Baker et al. (1988), Lawler and Edward (1971), Chonega et al. (2007), Kempf et al. (2009)). In this paper, we examine the more primitive, yet poorly understood question: why do mutual funds have different fee structures? That is, what explains the cross-sectional differences in the level of marginal fee structures and fixed fee mutual funds? Understanding why some actively managed mutual funds have different fee

¹An example of this would be the manager of a high turnover fund directing trades to a broker who in turn allocates some of the hottest IPOs to the fund manager's personal account. If this were done in lieu of providing research to the fund, which is the usual payoff in soft-dollar arrangements (the *quid pro quo* arrangement between brokers and fund managers whereby fund managers direct trades to brokerage firms who charge higher fees in exchange for research, software, computer systems, etc.), then this would clearly not represent investors' interest.

structure is important for two specific reasons. First, as discussed above, mutual fund fees are costly. Second, various fee structures may amplify the agency conflict between investors and managers, arising out of a contradiction between mutual fund fee generation and the long-term goal of investors.

The remainder of the paper contains five sections. In section 2, we develop the idea that a fund may choose a fixed or marginal fee structure, as either has advantages. In section 3, the data and preliminary analyses are described. Section 4 describes the methodology and section 5 discusses the main empirical results. Section 6 summarizes this paper's findings.

2. HYPOTHESES DEVELOPMENT

2.1. The Pros and Cons of Marginal and Fixed Fee Structures

Theoretically, a fixed and marginal fee strategy may offer several advantages to the fund and its investors. Therefore, it is not a forgone conclusion that a fund should follow one or the other, or that having selected one strategy the fund should stay with it over its life, regardless of the prevailing economic climate. Fixed fee structure is potentially beneficial to fund managers. This is because managers may charge a fixed management fee that is appropriate for the fund objective, maximizing the entire wealth of all fund investors equally. The fixed fee structure appears to not favor high Assets Under-Management (AUM) investors over investors with more modest investment amounts. Thus, the fixed fee structure could potentially attract more diverse investors. Hence, we hypothesize that fixed fee structures are motivated by minimum costs to the investors and, as a result, increase wealth of the investor, attracting more individual investors.

Marginal Fee structure and, hence, an economies of scale strategy can also be beneficial to investors. This is because the fees charged to an investor decrease incrementally the more the investor invests in a particular mutual fund. The marginal fee structure can significantly lower expenses by way of commissions and market impact for the mutual fund. The marginal fee structure clearly has more benefit for the high AUM investors. However, a marginal fee structure is not always the optimal strategy. Marginal fee structures require a significant investment into the same mutual fund, potentially exposing investors to more investment risk than if they diversified across mutual funds. In addition, the marginal fee structure may appear unfair to the investors that do not make the required investment to receive the lower marginal fee. Therefore, we hypothesize that the marginal fee structure is implemented for funds with investors that make large investments.

2.2. Development of the Conflict-of-Interest Hypothesis

It may be argued that fund managers of fixed fee structure funds treat all investors, new and old, exactly the same. However, if there are economies of scale with increased assets under management, then managers are increasingly embellishing their commissions when a fixed fee structure is implemented. Managers of marginal fee structure funds are providing additional benefits to investors with larger investments. Myers and Majluf (1984) state that managers are expected to act in the interest of existing investors rather than potential new investors. Investors do not directly observe the quantity or quality of the effort of fund managers on their behalf, but with greater marginal compensation rates it is expected that they expend greater and superior-quality effort (Starks (1987)).

Unfortunately, an unintended consequence of greater compensation from increased fees is that the greater effort it elicits may manifest itself as turnover and inappropriate risks. This is because trading signals the possession of information-generating skills resulting in fund managers who do not actually possess such skills being tempted to turn their portfolios in order to justify their compensation (Dow and Gorton (1997)). This represents a conflict of interest. Thus, it is possible that managers trade more if they are paid more. That is, turnover increases with the level of marginal compensation. Hence, we hypothesize that turnover in the current period is directly related to the total compensation rate (accumulated marginal rate versus the fixed fee rate) in existence at the beginning of the period.

Deli (2002) suggests that fund advisors with less concavity in their advisory fee contracts (i.e., have fixed rather than marginal fee structure) are motivated to take more risks in order to grow assets under management.² This is because a large increase in assets resulting from a risky position does not lower the advisor's marginal compensation rate (i.e., place him on a lower tier) to the same extent as would a fund with a more concave fee structure. One way to attempt to grow assets under management is to increase the fund's turnover. For instance, fund managers may dispose of a portion of their portfolio to lock in the gains from previous purchases that have done well. As Sirri and Tufano (1998), Ippolito (1992), Carhart (1997), and others, have shown, inflows increase with good past performance. Therefore, we also hypothesize that turnover is higher for small funds with flat fee contracts.

²An actual marginal fee arrangement is the following: 0.60% of the first \$200 million of average annual net assets, 0.55% of the next \$100 million, 0.50% of the next \$200 million, 0.45% of the next \$250 million, 0.40% of the next \$250 million, and 0.35% of average annual net assets over \$1 billion. If this fund had \$1 billion under management, its marginal compensation rate would be 0.40% and its concavity would be 0.625.

3. MUTUAL FUND SAMPLE AND DATA DESCRIPTION

3.1. Description of Mutual Fund Sample

Our sample is constructed from the universe of Open-end mutual funds from N-SAR reports over the period December 31, 2008 to December 31, 2013. Index funds, specialty funds, international funds, funds of funds, and others that are not considered regular U.S. domestic equity mutual funds were then excluded. Our final sample contains 196 individual domestic equity funds for a maximum of 1,176 fund years.

3.2. Description of Data

To examine the effect of fund advisors' compensation on fee structure, we hand collected the above and other relevant data from the fund's 2008 N-SARB filings with the SEC, available at the EDGAR web page (<http://www.sec.gov/edgar.shtml>). Because the N-SAR data cover a semi-annual period, all variables are at the six-month interval. The N-SAR filings are semi-annual reports required by the SEC. All regulated investment companies are required to file an N-SARA, covering the first six months of the fiscal year and an N-SARB, covering the latter half of the year. The N-SAR filings contain detailed information on 85 different aspects of the operations of Open-end mutual funds.³ Several previous papers, e.g., Edehlen (1999), Deli (2002), Almazan et al. (2004), and Kuhnen (2004), use data from these forms.

4. METHODOLOGY

The operations of individual funds within a fund complex may not be independent because of shared governance, operating policy, or other reasons. For instance, it is possible that the fee structure of two funds within a family are similar because of the fund family compensation strategy. In this paper, we apply the linear mixed effects approach to a panel model that accounts for both the fund fixed effects as well as family random effects (see, e.g., Primo, Jacobsmeier, and Milyo (2007)). This mixed effects model is applied as follows:

$$\begin{aligned}
 & \text{BrokerCompensation}_{it} \\
 = & b_0 + b_1 * \text{NetAssetValue}_{it-1} + b_2 * \text{FrontEndLoad}_{it} \\
 & + b_3 * \text{SalesForceCommission}_{it} + b_4 * \text{DeferredSalesLoad}_i \\
 & + b_5 * \text{12b-1Fees}_i + b_6 * \text{SoftDollarBenefits}_{it} + \varepsilon_t
 \end{aligned} \tag{1}$$

See Data Appendix A for N-SAR form descriptions and definitions of these variables.

³See <http://www.sec.gov/about/forms/formn-sar.pdf> to view the completed form.

5. PRELIMINARY AND EMPIRICAL RESULTS

5.1. Stylized Facts and Preliminary Analyses

Table 1 reports the summary statistics on the variables used to analyze the relationship between broker compensation and fee structures. The evidence indicates that the aggregate broker commissions have decreased from 2008 to 2013. This implies that funds are competing for investor inflows with lower commissions (Table 1, Panel A). There is also great variation in the standard deviation on the broker commissions from 2008 to 2013. This variation suggests that the broker commissions can vary substantially based on the fee structure. Consistent with the findings in Bryant et al. (2012), the soft dollar arrangements such as telephone services and best price execution are provided to selected brokers (Table 1, Panels B-H). In addition, these soft-dollar arrangements have a positive correlation with broker compensation.

TABLE 1.
Description of the Broker Benefits

Variable	Years						2008-2013
	2008	2009	2010	2011	2012	2013	
Panel A: Aggregate Brokerage Commissions							
N	23	34	37	37	37	15	183
Average	\$8,392.70	\$6,060.67	\$5,374.19	\$4,813.89	\$4,530.21	\$4,198.20	\$5,500.79
Standard Deviation	\$1,080.57	\$7,857.74	\$7,330.76	\$6,115.62	\$5,006.37	\$6,122.26	\$5,585.55
Panel B: Sales of Registrant's/Series' Shares							
N	23	33	35	35	35	15	176
Average	8.69%	6.06%	9.05%	5.78%	4.67%	4.67%	6.55%
Standard Deviation	0.28	0.24	0.47	0.04	0.21	0.16	\$0.23
Panel C: Investment Research and Statistical Information							
N	23	33	35	35	35	15	176
Average	98.12%	96.97%	88.57%	88.57%	88.57%	86.67%	91.23%
Standard Deviation	0.21	0.17	0.32	0.32	0.32	0.35	\$0.28
Panel D: Quotations for Portfolio Valuation							
N	23	33	35	35	35	15	176
Average	34.78%	30.03%	20.00%	20.24%	21.03%	83.33%	29.46%
Standard Deviation	0.48	0.47	0.41	0.4	0.41	0.35	\$0.42
Panel E: Obtain Best Price and Execution							
N	23	33	35	35	35	15	176
Average	95.13%	96.97%	94.29%	94.29%	94.29%	86.67%	94.25%
Standard Deviation	0.18	0.17	0.12	0.23	0.23	0.35	0.21

Turning to the summary statistics in Table 2, the mean Net Asset Value (NAV) is \$5.3 billion (Table 2, Panel A). Assuming even a modest commis-

TABLE 1—Continued

Panel F: Telephone and Wire Services							
N	23	33	35	35	35	15	176
Average	26.09%	24.24%	17.14%	20.32%	20.00%	21.43%	21.21%
Standard Deviation	0.44	0.44	0.38	0.38	0.41	0.31	0.39
Panel G: Broker Dealer is an Affiliated Person							
N	23	33	35	35	35	15	176
Average	17.39%	18.18%	22.86%	14.29%	14.28%	20.43%	17.65%
Standard Deviation	0.38	0.39	0.43	0.35	0.36	0.31	0.37
Panel H: Return/Credit Commission to Investment Advisor							
N	23	33	35	35	35	15	176
Average	43.48%	12.12%	11.42%	11.42%	11.43%	12.32%	15.82%
Standard Deviation	0.5	0.33	0.32	0.32	0.32	0.32	0.35
Panel I: Open- End Mutual Fund							
N	23	33	35	35	37	15	178
Average	34.78%	23.53%	21.62%	21.62%	21.62%	23.26%	24.08%
Standard Deviation	0.48	0.43	0.41	0.42	0.42	0.41	0.43

This table presents summary statistics for the sample of brokers from N-SAR A 2008 to N-SAR B 2013. The Aggregate Brokerage Commissions values are reported in millions. All other Broker benefits are binary variables and expressed in percentages. See Data Appendix A for description of the variables.

sion of 1%, this means that the fund's fees consume \$53 million of investors' wealth, before counting the associated costs, such as bid-ask spread, price impact, and opportunity costs. Needless to say, if the fund has a soft-dollar arrangement with a broker the transaction costs are necessarily higher. These broker commissions are in addition to potential Front-End and/or Back-End Load fees. Table 2, Panels B and D establish that the average Front-End and Back-End Load commissions are \$3 million and \$0.5 million per year respectively. Table 2, Panels G and H show the Marginal and Fixed fee structure percentages accessed on the time period. The mutual funds that apply the Fixed Fee structure charge slightly higher rates than the mutual funds that implement the Marginal Fee structure; 17.65% and 16.88% respectively. An implication of the above is that mutual fund families can employ fee structures that maximize profits to the fund company. It could be argued that funds with different fee structures require different types of loads, if the fee structure reflects the differing complexity of fund management.

5.2. Empirical Results

5.2.1. Conflict of Interest and Broker Commissions

In this sub-section, we investigate the role of conflict of interest in broker commission. Specifically, we examine whether or not, the presence of a par-

TABLE 2.

Variable	Years						
	2008	2009	2010	2011	2012	2013	2008-2013
Panel A: Net Asset Value (NAV)							
N	13	14	18	18	20	7	90
Average	\$1,405,319.00	\$1,466,333.00	\$8,819,420.00	\$7,893,191.00	\$6,420,910.00	\$1,696,781.00	\$5,332,449.71
Standard Deviation	\$3,295,712.00	\$3,346,780.00	\$2,052,092.00	\$1,784,120.00	\$1,640,412.00	\$1,421,641.00	\$2,239,007.99
Panel B: Front- End Load Total (\$)							
N	10	12	16	16	18	7	79
Average	\$840,000.00	\$2,614,833.00	\$4,615,703.00	\$3,514,938.00	\$3,570,056.00	\$684,732.00	\$3,024,333.97
Standard Deviation	\$1,296,594.00	\$6,734,282.00	\$1,199,637.00	\$743,650.00	\$7,425,641.00	\$115,604.00	\$3,282,793.44
Panel C: Sale Force Payment Total (\$)							
N	23	34	37	37	37	15	183
Average	\$271,739.00	\$1,211,941.00	\$875,135.00	\$1,464,324.00	\$959,189.00	\$648,667.00	\$979,431.54
Standard Deviation	\$933,257.00	\$596,615.00	\$380,564.00	\$643,853.00	\$492,584.00	\$251,227.00	\$555,449.52
Panel D: Deferred Sale Total (\$)							
N	23	34	37	37	37	15	183
Average	\$107,739.00	\$652,941.00	\$497,297.00	\$600,112.00	\$572,972.00	\$466,766.00	\$510,839.22
Standard Deviation	\$25,738.00	\$191,155.00	\$155,414.00	\$188,267.00	\$230,792.00	\$180,739.00	\$169,714.92
Panel E: 12b-1 Fee							
N	23	34	37	37	37	15	183
Average	\$1,050,043.00	\$6,107,353.00	\$4,555,954.00	\$6,201,620.00	\$7,605,405.00	\$1,081,864.00	\$5,068,082.92
Standard Deviation	\$3,031,091.00	\$2,126,784.00	\$1,520,920.00	\$2,201,069.00	\$2,841,655.00	\$4,190,052.00	\$2,446,619.44
Panel F: Minimum Investment Requirement							
N	6	10	11	13	15	23	78
Average	\$280.60	\$809.31	\$2,901.45	\$2,424.89	\$1,793.44	\$1,500.00	\$1,725.87
Standard Deviation	\$448.56	\$210.12	\$619.41	\$556.79	\$4,398.00	\$866.03	\$1,342.73
Panel G: Variable Fee Structure							
N	12	13	19	24	23	18	109
Average	11.43%	12.20%	14.59%	16.47%	17.48%	17.66%	16.88%
Standard Deviation	0.87	0.74	0.78	0.81	0.79	0.71	0.75
Panel H: Fixed Fee/ Flat Rate Fees							
N	11	13	13	12	20	18	87
Average	13.21%	14.04%	15.94%	18.31%	18.16%	18.31%	17.65%
Standard Deviation	0.32	0.27	0.31	0.35	0.34	0.27	0.33

This table presents summary statistics for the mutual funds sold by brokers from N-SAR A 2008 to N-SAR B 2013. The Inflow variable is the result of the sales - redemptions over the year reported in millions. All other variables are expressed as a percentage. See the Data Appendix A for description of the variables.

ticular fee structure increases the brokers' commissions. Table 3 reports results of the univariate regression analysis examining brokers' commis-

sions. There are several interesting results in the panel. First, as expected, Open-End Investment funds have positive and significant impact to broker compensation (Table 3, Model i). The explanatory power of the Open-End Investment fund is the largest at 18.77%. Similarly, Table 3, Model ii reports that the larger the fund the greater the broker compensation. This is consistent with Table 3, Model xii that reports that if a minimum investment is required, then the broker's compensation is greater. We also find that brokers of funds with marginal fee structures receive higher compensation (Table 3, Model xxii). Together, these findings reveal that marginal fee structures funds generate more money to pay brokers greater compensation.

TABLE 3.

Broker compensation Univariate Results					
Model	Explanatory Variables	Constant	Coefficient	R^2	Observations
i.	Open- End Inv. Comp (Binary)	3792.471***	7270.296***	18.77%	183
ii.	NAV Total	4893.032***	0.0009166***	9.92%	90
iii.	Front- End Load (Total)	5693.985***	-0.1809175*	5.30%	79
iv.	Front- End Load (Average)	5950.742***	-1.840682*	5.88%	79
v.	Front- End Load Max (Average)	12156.31***	-1526.047*	14.15%	79
vi.	Sales Force Commission (Total)	5152.473***	3.555671***	5.72%	183
vii.	Deferred Sales Load (Binary)	5012.099***	8130.083***	7.38%	183
viii.	Deferred Sales Load Average (Binary)	5016.714***	13724.65***	5.71%	183
ix.	Deferred Sales Load Amount(Average)	11821.59*	-144.8006*	33.44%	21
x.	Dominate Broker (Binary)	6663.54***	-146.7613*	3.59%	137
xi.	12b-1 Fee (Total)	4960.378***	0.7661182***	7.31%	183
xii.	Minimum Investment	5649.618***	0.0087959*	5.36%	58
xiii.	Part of Fund Family (Binary)	4227.658***	1606.783*	0.84%	183
xiv.	Registrants Shares (Binary)	5357.753***	5339.747*	1.33%	174
xv.	Research Information (Binary)	4879***	842.0621*	0.11%	176
xvi.	Portfolio Valuations (Binary)	6662.867***	-4350.94*	6.50%	176
xvii.	Best Price (Binary)	61.55556*	5888.876**	3.23%	176
xviii.	Telephone and Wire (Binary)	6083.086***	-2063.438*	1.36%	176
xix.	Affiliated Person (Binary)	6537.683***	-5043.747*	7.09%	176
xx.	Com. Credit Advisor (Binary)	6151.962***	-4423.462	3.79%	176
xxi.	Com. Credit Registrant (Binary)	5661.283***	-30.14016*	0.01%	176
xxii.	Fee Rate Structure (Binary)	4872.189***	2054.186*	1.77%	183

This table reports results from regressing the cross-section of the broker's compensation (in \$) on the specific benefits provided by the fund sponsor. The broker's compensation is reported on each N-SAR. Other variables are described in Data Appendix A. The term "Binary" indicates when a binary variable was utilized. ***, ** and * denote significance at the 1%, 5% and 10% levels, respectively.

5.2.2. Further Examination of the Fee Structure on Commission

In Table 4, we further examine the role of the compensation fee on brokers' compensation. Mutual fund advertising fees, 12b-1 fees have a statistically significant and positive effect on broker compensation. These results support the premise that brokers advertise their products and serves to new clients have higher compensations (Table 4, Models i, ii). As expected, Open- End mutual funds have a statistically positive affect on broker compensation (Table 4, Model iv, vii). Since Open-End mutual funds do not have restrictions on the number on shares issued, brokers are allowed to issue unlimited shares receiving increasing their compensation. Finally, the fund's Investment Minimum requirement is inversely related to the brokers' compensation. This indicates that brokers provide fee discounts to investors with larger investment accounts (Table 4, Model iii, v, vi). Broker compensation continues to show a statistically positive relationship with broker benefits. The broker benefits of Best Price Benefit is shown to have a statistically and economically significant and positive effect on broker compensation (Table 4, Model vii). Consistent with Table 3, when brokers provide investors with soft benefits like Best Price Execution, they are able to increase their compensation. These findings suggest that Marginal fee structures that have minimum investment requirements lower compensation paid to brokers. Finally, broker compensation increases with Fixed fees structures (Table 4, Model i, ii, iii, vii). Thus, a mutual fund fees structure can influence to overall wealth of the mutual fund investor.

6. CONCLUSION

In this paper, we examine whether fixed fee or marginal rate management fee structures affect broker compensation. We use hand-collected data on a sample of mutual funds to determine the effect of the fee structure on marginal compensation. We first present stylized facts about the broker compensation, soft benefits and the mutual fund fee structures. Next, we empirically examine a conflict-of-interest hypothesis to explain the cross-sectional variation in fee structures. The results indicate that fund fee compensations and broker compensation are directly related, suggesting that there is some truth to the argument that brokers are paid to sell mutual funds.

Despite the large body of research on mutual fund performance, previous studies have sparingly examined the fees of mutual funds. This study examines the fee structures impact on broker compensation. Inconsistent

TABLE 4.

	Model i	Model ii	Model iii	Model iv	Model v	Model vi	Model vii
Constant	3972.86***	4252.69***	9708.53***	4349.38***	9581.83***	9676.15***	61.56***
Open- End Mutual Fund		-2248.57	4428.200	9005.82***		5790.487	7007.75***
Net Asset Value	-0.004	0.003			0.0250	0.006	
Front- End Load Total	2.952***	-.1746**	-.202**		-0.358**	-0.242	
Sales Force Commission		0.298	1.559	0.19	-1.971	1.595	
Deferred Sales Load (Binary)					-7666.475		
Fee Structure (Binary)	676.73***	463.90***	277.18**				322.24**
12b-1 fee to Brokers				-84.857			
12b- 1Fee Total	0.897***	0.942***	0.743		1.260		
Investment Minimum Requirement			-3.382**		-5.068**	-3.813**	
Broker Benefit Portfolio Valuations							-3731.28**
Broker Benefit Best Price							7524.88**
Broker Benefit Affiliated Person							-4596.25
Observations	60	79	32	137	32	32	115
R-Squared	0.9963	0.3046	0.3885	0.27	0.4201	0.3628	0.3347
Adjusted R-Squared	0.9816	0.257	0.2709	0.2535	0.281	0.2403	0.2978

This table reports results from regressing the cross-section of broker's compensation (in \$) on measures of broker's benefits using a multivariate analysis. The broker's compensation is reported on each N-SAR. Other variables are described in Data Appendix A. ***, ** and * denote significance at the 1%, 5% and 10% levels, respectively.

with our priors, we find that funds with marginal fee structures that require a minimum investment are inversely related to broker compensation. This may reflect an attempt by fund managers to lower the fees paid to brokers and thus the fees earned by brokers. Finally, not surprisingly, we find that soft broker benefits have a statistically significant impact on broker compensation.

Using a multivariate regression analysis, we further examine the role of the compensation fee on brokers' compensation. Mutual fund fee structure is directly related to the broker compensation. The multivariate results suggest that if a mutual fund were to change its management fees policy from a marginal tier fee structure to a fixed fee structure, broker compensation and thus the expenses to investors would decrease. Assuming that managerial skills are reasonably equally distributed across the mutual funds within a company, this suggests that the variation in management

compensation fees establishes a conflict of interest between investors and mutual fund management.

APPENDIX: DATA

N_SAR Item Definitions and Descriptions

N_SAR Item 21 — Broker Aggregate Compensation

Item 21 presents the information about the amount of brokerage commissions paid directly or indirectly by the registrant to the total amount of brokerage commissions paid to all brokerage entities during the period.

N_SAR Item 26 — Participation of brokers or dealers in compensation paid on portfolio transactions of registrant

N_SAR Item 26 A — Sales of Registrant's/ Series' shares

The registrant is issued shares of the mutual fund to sell. The registrant has exclusive right to sell the shares the registrant receives. Pursuant to the Sales Agreement, the Common Shares may be offered and sold through any of the Sales Agents in negotiated transactions or transactions that are deemed to be "at the market" offerings as defined in Rule 415 of the Securities Act of 1933, as amended, including sales made by means of ordinary brokers' transactions (including on the New York Stock Exchange), at market prices or as otherwise agreed to with the Sales Agents. The Sales Agreement provides that each Sales Agent will be entitled to compensation of up to 2.00% of the gross sales price of the Common Shares sold through such Sales Agent. The Registrant may also sell Common Shares to a Sales Agent as principal for its own account at a price and discount agreed upon at the time of sale pursuant to a separate terms agreement. The Registrant has no obligation to sell any of the Common Shares under the Sales Agreement and may at any time suspend solicitation and offers under the Sales Agreement.

N_SAR Item 26 B — Receipt of investment research and statistical information

N_SAR Item 26 C — Receipt of quotations for portfolio valuations

N_SAR Item 26 D — Ability to execute portfolio transactions to obtain best price and execution

N_SAR Item 26 E — Receipt of telephone line and wire services

N_SAR Item 26 F — Broker or dealer which is an affiliated person

The broker is an affiliated person of the registrant, its investment adviser or principal underwriter, or of an affiliated person of any of the foregoing.

N_SAR Item 26 G — Arrangement to return or credit part of all of commissions or profits thereon:

G(i) To investment adviser, principal underwriter, or an affiliated person of either

G(ii) To registrant

N_SAR Item 26 H — Other

N_SAR Item 28 H — Total NAV of Registrant's/Series' share sales during the period subject to a sales load (\$000's omitted)

ITEM 29 — Registrant/Series imposing a Front-end sales load The term "sales load" is defined in Section 2(a)(35) of the Act. As defined, the term includes only Front-end sales loads, or that money which is deducted from the share price before investment of the proceeds.

ITEM 29 — Registrant/Series imposing a Front-end sales load The term "sales load" is defined in Section 2(a)(35) of the Act. As defined, the term includes only Front-end sales loads, or that money which is deducted from the share price before investment of the proceeds.

ITEM 34 — Deferred or contingent deferred sales loads A deferred or contingent deferred sales load is any sales load deducted from the proceeds of the redemption or repurchase of registrant's securities.

ITEM 42 — Percentage of payments under the 12b-1 plan

Item 42 asks each registrant/series to indicate the percentage of its total direct payments under the 12b-1 plan which were made for a variety of services or functions. Under sub-item 42A, the registrant/series should include all payments it has made directly for advertising. Advertising done by other entities, such as a dealer in fund shares which the dealer pays for with money it receives under the 12b-1 plan should not be included under sub-item 42A. Under sub-items 42C and 42D, the registrant/series should include all payments made under the 12b-1 plan to brokers, dealers and underwriters regardless of how these monies are ultimately used by these entities. Under sub-item 42E, the registrant/series should include all payments under the 12b-1 plan which it has made directly to persons who have sold fund shares. Indirect payments to sales personnel, such as payments to account executives of brokers or dealers selling fund shares which are made by such brokers or dealers with money they receive from the registrant/series under the 12b-1 plan, should not be included in this sub-item. Under sub-item 42F, the registrant/series should include all payments made under the 12b-1 plan to banks and savings and loans regardless of how this money is ultimately used by the bank or savings and loan.

ITEM 48 — Fee rate under advisory contract

If the registrant/series has more than one advisory contract, aggregate the fee rate payable at each breakpoint. If the contract(s) have more than

10 breakpoints, list only the first 10 on the lines shown and the last Breakpoint on Line K.

ITEM 61 — Minimum required investment

In answering this item, the registrant should give the lowest minimum initial investment that it requires of an investor to Open- an account. This minimum amount does not have to be received in a lump sum if the registrant/series permits investors to reach this minimum level over a period of time. Minimum investments required to Open- IRA, KEOGH, qualified corporate retirement plans and other similar tax-advantaged accounts should not be considered in answering this item.

N_SAR Item 71 — Portfolio turnover rate for the current reporting period:

N_SAR Item 71 A — Purchases (\$000's omitted)

N_SAR Item 71 B — Sales [including all maturities] (\$000's omitted)

N_SAR Item 71 C — Monthly average value of portfolio (\$000's omitted)

N_SAR Item 71 D — Percent turnover (Use the lesser of 71A or 71B divided by 71C)

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