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2. Active Management

Assumptions:

Portfolio is turned over once a year at which time taxes on dividends and capital gains are paid.

$$AV_N = V_0[(R_M + R_A - R_D)(1 - T_{CG}) + R_D(1 - T_I) + 1]^N \quad (2)$$

where

V_0 = starting investment at time 0,
IV_N = end of horizon after tax wealth if invested in index funds,
AV_N = end of horizon after tax wealth from active management,
R_M = return on the market including dividends,
R_E = the expense ratio for index funds,
R_D = dividend yield,
R_A = extra return from active management,
T_I = tax on dividends,
T_{CG} = tax on capital gains,
N = number of years in investment horizon.

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c) The flow of new money into the best performing funds is much larger than the flow of money out of the poorer performing funds. Tax disadvantaged investors and to some extent institutionally disadvantaged investors will not or cannot move money out of bad funds, but tax disadvantaged investors and to some extent institutionally disadvantaged investors can place new money in good performing funds.
d) The flow of new money into and out of mutual funds underperforms naive rules for selecting mutual funds as examined in Table II. Again I explain this as due to the presence of both a disadvantaged clientele and a sophisticated clientele. The sophisticated investor earns more than the average positive return on marginal cash flows; the disadvantaged investor earns less.
e) Because sophisticated investors can't short sell funds, they cannot eliminate inefficient funds.[23] However, by disinvesting (or not investing) in these funds they eliminate the worst performing funds in the sample over time. This is the reason that 28 percent of the poorer performing funds in my sample merged or changed to noncommon stock funds over the ten year sample period.

I believe that I have shown that the continued investment in actively managed funds as well as index funds is much more rational than we have assumed in the past.

Appendix A

Formulas Used to Compute the Horizon Value of Money Invested in Index Funds or Active Management

1. Index Funds

Assumptions:

Taxes are paid on dividends each year.

Taxes are paid on capital gains at the end of the horizon.

$$IV_N = V_0(1 + R_M - R_E - R_D T_I)^N(1 - T_{CG}) + \left[\sum_{t=1}^{N} R_D V_{t-1}(1 - T_I) + V_0 \right] T_{CG} \tag{1}$$

where

$$V_t = V_0(1 + R_M - R_E - R_D T_I)^t.$$

[23] A small number of mutual funds have recently begun to allow short sales.

a) Mutual funds, on average, offer a negative risk adjusted return
b) The investor can get a better deal by buying index funds
c) In the closest investment to open end funds, closed end funds, the investor will not pay as much as one dollar for every dollar under management.

I believe I have solved the puzzle. Future performance is in part predictable from past performance. This can occur because the price at which funds are bought and sold is equal to net asset value and does not change to reflect superior management. A group of sophisticated investors seems to recognize this, as evidenced by the fact that the flow of new money into and out of mutual funds follows the predictors of future performance. Furthermore, investors who supplied new cash flow benefit from this, for the risk adjusted returns earned on new cash flows (both into and out of funds) over the ten years of this study are positive and above the return earned by both the average active and the average passive fund.

This raises another question. Why do we see any money remain in funds that are predicted to do poorly and in fact do perform poorly? I propose a possible explanation for this phenomenon: The existence of two clienteles, a sophisticated clientele and a second clientele that I will refer to as a disadvantaged clientele.

The sophisticated clientele directs its money to funds based on performance. The disadvantaged clientele consists of three groups:

1) Unsophisticated investors—a group that directs its money to funds based at least in part on other influences such as advertising and advice from brokers.
2) Institutionally disadvantaged investors—a group primarily represented by pension accounts that are restricted by the plan they are part of to a set of funds that underperforms the best active funds.
3) Tax disadvantaged investors—a group that has held one or more funds for enough time so that capital gains taxes make it inefficient to remove money from these funds. This group can still act as sophisticated investors in placing new money.

All of the evidence in this article is consistent with this hypothesis.

a) The stock of money underperforms appropriate benchmarks. The stock of money is likely to contain a large percentage of the funds invested by the disadvantaged clientele.
b) The flow of money performs better than appropriate benchmarks. Sophisticated investors are likely to constitute a larger percentage of new cash flows into and out of mutual funds. The investor who moves cash into and out of funds earns a positive risk adjusted return and gets the services provided by mutual funds at no net cost.[22]

[22] I should point out that even some sophisticated investors will buy index funds. They may give up the extra return from selecting a superior manager to avoid the nonsystematic risk of selecting an inferior one. This is not a problem for the sophisticated investor who diversifies across funds and across time.

the formulas in the appendix to examine the after tax advantage or disadvantage of active management under different assumptions.

Figure 2 uses data representative of market and fund behavior over the period 1985–1994. The return on the market was assumed to be 14.4 percent, the dividend yield on the market was assumed to be 3.6 percent, the expense ratio for index funds was assumed to be 22 basis points, and the added excess risk adjusted return from active management was assumed to be 28.9 basis points per year. Clearly, under this assumption an investor who can defer taxes (e.g., a 401K plan investor) is better off holding active portfolios. An investor who is subject to a 15 percent marginal tax rate is better off holding an active portfolio as long as he or she plans to invest for less than seven years. Finally, an investor subject to the highest marginal tax rate 39.6 percent is better off in the active portfolio as long as the relevant time horizon is smaller than 3.8 years.[20]

Figure 3 is constructed under the same assumptions as Figure 2, except that the market return is set to 10.2 percent and the dividend yield to 4.2 percent. These numbers better reflect the long run market environment. In this case, the investor with a 15 percent marginal tax rate should prefer active management as long as the time horizon was less than 20 years, while for the investor in the marginal 39.6 percent bracket, the breakeven horizon is 9.1 years.[21]

Why do these graphs appear as they do? Let us look at Figure 2. For any tax rate there is an initial advantage for the investor in active management, for it is worth postponing the tax on a 10.8 percent capital gain by one year to pick up an additional return of 50.9 basis points. The advantage disappears for longer holding periods because of the added advantage (of passive management) of compounding return on unrealized capital gains.

IX. Summary and Conclusion

In conclusion, let me return to my initial mutual fund puzzle: why do investors buy actively managed open end mutual funds and pay one dollar for each dollar under management when

[20] In constructing this figure current tax rates were used. The fact that the largest federal tax rate on capital gains was 28 percent while on dividends it was 39.6 percent was recognized. State taxes vary widely and were ignored in this analysis. The breakeven time horizon for other marginal tax rates, 28 percent, 31 percent, and 36 percent are very close (within 0.15 years) to that for the 39.6 percent tax rate. The breakeven time horizon should be larger than the numbers shown in these figures because I assumed zero turnover on the part of index funds in constructing the figures.

[21] All of this analysis was repeated assuming a more conservative alpha of 22 basis points rather than the 28.9 basis points assumed above. The 22 basis points represent the annual return on positive cash flows for investors in no load funds who have a one year holding period, while the 28.9 basis points represent this return for holders of both load and no load funds. Assuming an alpha of 22 basis points and the 1985–1994 assumptions described in the text, the breakeven time horizon for the 15 percent tax rate and the 39.6 tax rate become 6 years and 3.4 years respectively. For the long term assumptions, these breakeven times become 16.3 years and 7.9 years respectively.

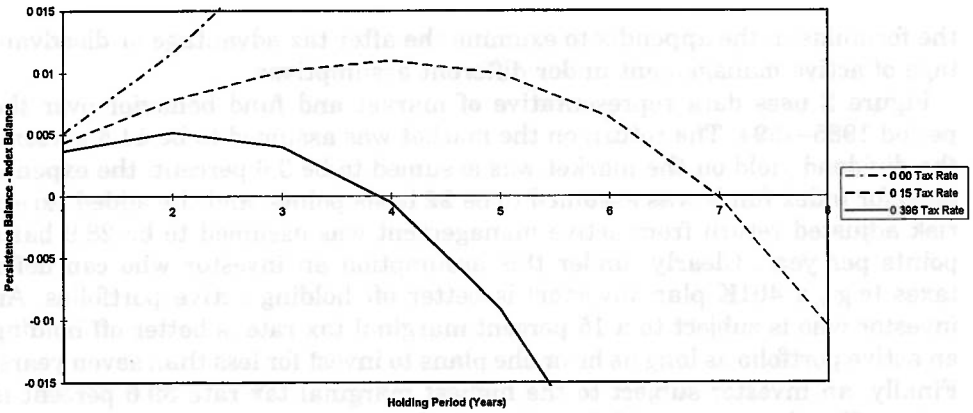


Figure 2. Net advantage of persistence strategy over index strategy 1985–1994 market environment. The figure shows the net advantage of investing according to the persistence strategy over investing in index funds for various federal tax rates. Historical averages from January 1985 to December 1994 are used for the market return and dividend yield. Expenses reflect present day averages.

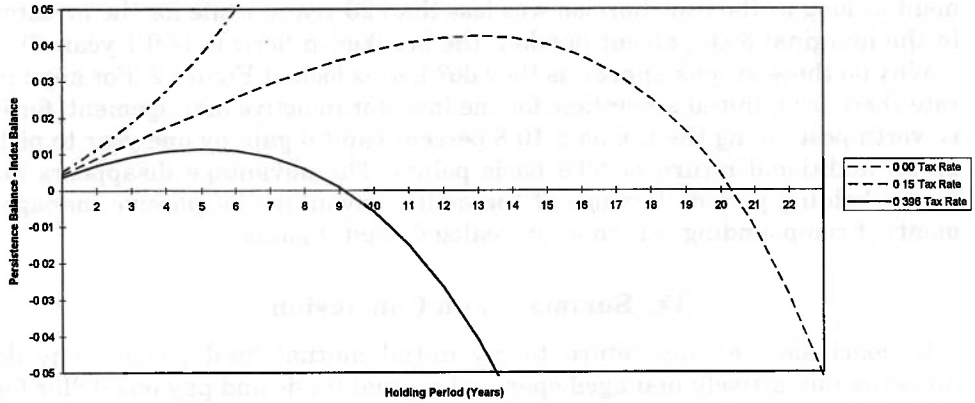


Figure 3. Net advantage of persistence strategy over index strategy 1926–1994 market environment. The figure shows the net advantage of investing according to the persistence strategy over investing in index funds for various federal tax rates. Historical averages from January 1926 to December 1994 are used for the market return and dividend yield. Expenses reflect present day averages.

In the appendix, I present the formulas for determining the after tax wealth N years in the future that will arise from investing in index funds or actively managed portfolios assuming the investor sells his or her portfolio and thus pays taxes on the portfolio's realized and unrealized capital gains once a year. In Figures 2 and 3, I present the added advantage of investing in active rather than passive funds for different holding periods and different tax rates under particular assumptions about the investment environment. The reader can use

per year, the weighted average of the previous two numbers. Finally, if we assume that the cash flow out of funds was reinvested in new funds, the investor saved a negative risk adjusted return on the cash disinvested and earned a positive return on the reinvestment of those funds to give a yearly risk adjusted return of 99 basis points per year.

It is clear from examining Table VIII that assuming a one quarter holding period leads to higher risk adjusted returns for investors. However, note that the improvement in results comes almost exclusively from disinvestment in funds rather than new investment in funds. Finally, if a three year holding period is assumed, the excess risk adjusted returns become much smaller, although they are still positive.[18]

Panel B of Table VIII shows that the risk adjusted returns we discussed above probably understate the return actually earned on new cash flows. If the money were invested at the start of the quarter (an impossibility since the cash flow had not yet occurred), returns would be very much larger. Assuming none of the cash flow that occurred during the quarter was reinvested until the quarter was over (Panel A) understates the returns earned on new cash flows.

Finally, Panel C presents the results (under the timing assumption of Panel A) reported separately for no load and load funds. Note that the return on marginal money in load funds is higher than that on no load funds. However, the return on no load funds is greater than zero. The excess return earned by the new cash flow into load funds during the period is not large enough to compensate investors for the load.

Throughout this article I have analyzed returns before taxes. This seems appropriate for many of the investors in mutual funds. Estimates of the percentage of new cash flow to stock funds that came from tax deferred sources (e.g., IRA, Keogh, and 401K plans) exceeded 50 percent in 1993 and by the end of 1994, over half of the assets held in these funds were from tax deferred sources. To the extent new cash flow was supplied by investors with tax-deferred accounts, the risk adjusted return on investing in actively managed funds was clearly advantageous. But is this the case for an investor subject to taxes?

By buying an actively managed portfolio rather than an index fund, the investor gains extra risk adjusted return as measured by α^4, but pays taxes on capital gains earlier. Whether buying active funds is the preferred strategy depends on the return expected on index funds, the dividend yield on index funds, the expense ratio of index funds, the α^4 on actively managed funds, the investor's tax rates (on dividends and capital gains), and the investor's time horizon (point in time at which the investor wants to maximize wealth).[19]

[18] It is worthwhile mentioning that if annual cash flow data are used rather than quarterly data and cash flows that occur during the year are assumed to be invested at the end of the year, the risk adjusted return on new cash inflows are slightly negative, while the risk adjusted return on outflows and overall cash flows are very slightly positive.

[19] The reader should note that to obtain the extra return from active management I assume the investor turns over his or her portfolio once a year. I describe as time horizon the period over which the investor expects to pursue an active or passive strategy.

Table VIII

Monthly Realized Cash Flow-Weighted Alpha

The table shows the monthly realized cash flow-weighted alpha in percentage computed by summing the product of the realized four index alpha and realized cash flows for holding periods of one quarter, one year, and three years. Results are shown for positive cash flows, negative cash flows, weighted average cash flows, and net cash flows as well as for realizations assuming the cash is invested at the end of the quarter (Panel A) and at the beginning of the quarter (Panel B) during which the cash flow is realized. Panel C shows realizations for load and no load funds assuming investment at the end of quarter. The sample consists of the 227 funds that existed in January 1982. The sample period is from January 1985 to December 1994.

	Holding Period		
Return on:	1 Quarter	1 Year	3 Year
	Panel A: Buy at End of Quarter		
Positive cash flows	0.0293	0.0241	0.0033
Negative cash flows	0.0712	0.0187	0.0082
Weighted average	0.0440	0.0221	0.0055
Net cash flow	0.1470	0.0824	0.0492
	Panel B: Buy at Beginning of Quarter		
Positive cash flows	0.1032	0.0466	0.0128
Negative cash flows	0.0522	0.0214	0.0139
Weighted average	0.0852	0.0376	0.0133
Net cash flow	0.2885	0.1318	0.0813

Panel C: Load vs. No Load

	1 Quarter		1 Year	
	No Load	Load	No Load	Load
Positive cash flows	0.0433	0.0199	0.0183	0.0281
Negative cash flows	0.0520	0.0834	0.0139	0.0217
Weighted average	0.0463	0.0425	0.0168	0.0257
Net cash flow	0.1456	0.1481	0.0584	0.1003

The second method looks at new cash flows as an overall portfolio. The dollars invested is equal to the new cash inflows minus the absolute value of the new cash outflows. The procedure is identical to that presented above, except that the denominator of the weights on cash inflows and outflows is set equal to the net amount of dollars invested (i.e., inflows minus outflows). This method produces a measure of the return on the new portfolio held by the aggregate of all investors. It assumes that dollars which are disinvested in funds are used to finance part of the new investment in funds.

All of the results are shown in Table VIII. Let us examine one case in detail. Look at the cash involving purchases at the end of the quarter assuming a one year holding period. The risk-adjusted excess returns earned on new cash inflows to funds was 2.4 basis points per month or 28.9 basis points per year. The investors who removed money from funds save 1.87 basis points per month or 22.4 basis points per year. The average dollar moved saved 26.5 basis points

follow performance. The next step is to see if by following performance they enhance their performance. To do so, I examine the rewards that investors get on the new cash they move into and out of mutual funds each year. For this purpose, I define risk adjusted return as the alpha from my four index model which, as argued above, is the most relevant measure of the rewards an investor gets for the risk he or she takes.

The next issue to deal with is the issue of timing. I have shown that new cash flows follow good performance. If performance is good in year t, we expect high positive cash flows to follow. The question is: do these cash flows *subsequently* earn a positive risk adjusted return?

To answer this, we must make assumptions about both when the cash flows are invested and the holding period for investors. I obtained net cash flows (positive and negative) for each mutual fund in my sample on a quarterly basis.[16] I assume that new cash flows are invested at the end of the quarter in which they occurred. In fact, they are invested during the quarter. By assuming that cash flows are invested at the end of the quarter in which they arise rather than at the moment they occur, I am biasing the results against finding superior performance because, as we have already established, high returns occur during the period of time when cash flows occur. While I can't directly measure the impact of this, I try to gain an idea of its importance by also estimating excess risk adjusted return assuming investment at the beginning of the quarter rather than the end. I also examine the return to new cash flows assuming three alternative holding periods of one quarter, one year, and three years.

I compute the risk adjusted four index αs to investors in several ways. I first estimate the return on all positive new cash flows. The dollars into any fund in quarter t are multiplied by the monthly risk adjusted return *on that fund* in a subsequent period (e.g., 1 year). This is summed across all funds for all periods and divided by the total positive inflow to all funds in all periods. This is the average monthly α earned on positive new investments.

The same procedure is followed for cash outflows except that the sign is reversed. This is the risk adjusted return an investor got by disinvesting (taking money out of a fund).[17]

I measure the overall risk adjusted return on new cash flows (positive and negative) in two ways. The first is a simple weighted average of the risk adjusted return on positive cash flows and negative cash flows. The weights are respectively the value of new cash inflow and the absolute value of new cash outflow divided by the sum of the two.

[16] New cash flows are defined earlier in this article as cash additions (or deletions) from a fund after allowing for the reinvestment of dividends and capital gains.

[17] This is the same as the risk adjusted return on short sales, except that it represents an actual sale rather than a short sale. The implicit assumption here is that dollars removed from funds earn a zero alpha over the holding period being examined. If the investor had bought the fund which he actually sold, the risk adjusted returns would be negative. The reader should be careful in comparing this table to other tables (e.g., Table II), where returns are shown for buying rather than short selling poor performing portfolios.

Table VII

Prediction of Cash Flows

The table shows the coefficients from a regression of the realized cash flows against the four index alpha from the prior two years, the cash flow from the prior year, the one index alpha from the prior year, and the return from the prior year. The sample consists of the 227 funds that existed in January 1982. The sample period is from January 1985 to December 1994.

$$CF_t = \gamma_0 + \gamma_1\alpha^4_{t-1} + \gamma_2\alpha^4_{t-2} + \gamma_3 CF_{t-1} + \gamma_4\alpha^1_{t-1} + \gamma_5 R_{t-1} + e_t$$

γ_0	γ_1	γ_2	γ_3	γ_4	γ_5	ρ^2
0.018*	0.235*					0.106
0.014*	0.222*	0.112*				0.135
0.004	0.184*	0.054*	0.364*			0.244
0.015*	0.111**	0.059*	0.345*	0.081*		0.258
0.014*	0.127**	0.062*	0.355*		0.005**	0.258

* Significant at 1 percent level.

** Significant at 5 percent level.

slightly lower. To try to get a better idea of the significance of the return predictors, the relationships were rerun with past one index alphas and past returns in excess of the S&P 500 index entered along with past four index alphas. Note that adding either past return or past single index α to the estimated equation does lead to some slight improvement in explanatory power and that both the four index forecasters and the added forecaster remain statistically significant at the 5 percent level.[15] In an attempt to see whether size or expenses had any additional impact on cash flows, both variables were employed along with four index alphas as independent variables. Neither variable entered at a statistically significant level. These results indicate that investors do act on past performance in allocating money to mutual funds. Given the results of Section IV, investors act rationally. Furthermore, the best predictor of performance (the α from the four index model) is also marginally the best predictor of cash flows. Even though it is a complex measure, investors act as if they are paying attention to it. On the other hand, either the single index α or the excess return above the market adds marginal improvement in forecasting cash flows. At least some investors seem to be paying attention to these simpler measures of performance in allocating money among mutual funds.

VIII. Return on New Investment

I have established that there is persistence in mutual fund performance and that investors invest their money as if they are aware of this persistence. They

[15] Lagged values of the one index α and returns in excess of the market were added to this last set of equations. Neither entered at a statistically significant level. Past one index alphas and excess returns were not entered simultaneously in the regression because in several years the correlation between these two measures was close to one.

Table VI

Annual Cash Flows for Deciles Formed on the Basis of Four Index Alphas in the Year Following Formation

The table shows the average realized annual cash flow in millions of dollars and cash flow normalized by dividing by total net assets from the end of the previous year for deciles formed on the basis of one year four index alpha. The cash flows are for the year following decile formation. The sample consists of the 227 funds that existed in January 1982. The sample period is January 1985 to December 1994.

Decile	Cash Flow	Normalized Cash Flow
Worst 1	−40.35	−0.154
2	−42.74	−0.112
3	−4.16	−0.051
4	14.32	−0.050
5	7.93	−0.037
6	20.79	−0.024
7	48.51	0.045
8	75.77	0.066
9	97.59	0.128
Best 10	152.44	0.290
Spearman Rank Coefficient	0.98*	1.00*
Top decile–bottom decile	192.79*	0.444*
Top decile–average of bottom nine	132.70*	0.311*
Top five deciles–bottom five deciles	92.02*	0.183*

* Significant at 1 percent level.
** Significant at 5 percent level.
*** Significant at 10 percent level.

sions. The first point to note is that the association between those variables that predict performance and subsequent cash flows is very high and statistically significant and of the sign we would expect if investors were acting on past performance. The past four index α as well as the four index α lagged one additional year are both statistically significant and have a ρ^2 with normalized cash flows of 0.13. There are a number of other variables besides past performance that might account for future cash flows. These range from marketing effort, general reputation, and any bias in our measure that may be due to a size effect.[14] I try to capture these by including a lagged cash flow variable in the regression. This variable does have large explanatory power, but even when past cash flows are included, the last two periods four index alphas are statistically significant predictors of cash flows.

When this set of regressions are rerun using a single index alpha or past returns in excess of the S&P 500 index as independent variables, very similar results are found and the explanatory power is almost identical, although

[14] This also should proxy in part for cash flows that arise because investors are locked into certain funds because of constraints on investment choices imposed by retirement accounts.

Table V

Expense Ratios for Deciles Formed on the Basis of Four Index Alphas

The table shows the annual expense ratios in percentage for deciles formed according to four index alpha. The expenses are shown for the period the deciles are formed and for each of the next four years. The sample consists of the 227 funds that existed in 1982. The sample period is from January 1985 to December 1994.

	Expenses				
Decile(t)	t	$t+1$	$t+2$	$t+3$	$t+4$
Worst 1	1.357	1.405	1.413	1.415	1.400
2	1.050	1.061	1.068	1.084	1.072
3	1.018	1.007	1.031	1.064	1.115
4	0.960	0.968	0.984	0.998	1.024
5	0.971	0.994	1.029	1.049	1.064
6	0.955	0.962	0.970	0.967	0.959
7	0.973	0.986	0.998	1.007	1.050
8	1.035	1.016	1.053	1.080	1.119
9	1.027	1.043	1.037	1.055	1.028
Best 10	1.042	1.052	1.048	1.058	1.057
Mean	1.039	1.049	1.063	1.078	1.089

new cash flow as a growth rate. This tends to magnify the reported cash flow for funds with very small net asset values.

Having described these measures, let me report that the results are exceedingly powerful whichever measure I use. Table VI reports the results of using the four index alphas as a basis for forming deciles when cash flows are examined in the following year. Note how strong the ranking is and that the differences between groups of deciles are all statistically significant at the 1 percent level. When ranking into deciles is done on the basis of 1 year returns, 3 year returns, 1 year alphas, and 3 year alphas, the results are also very strong. The lowest rank correlation across all measures is 0.94, and all of the differences between deciles like those reported in Table VI are statistically significant at the 1 percent level.

There is no doubt that investors chase past performance. It is interesting to see whether we can discern which measure of past performance they chase. Recall that the α from the four index model appears to give the best predictions of future performance. Thus one could argue that investors should use this to decide on where to invest cash flows. On the other hand, I don't seriously believe that the average investor runs the four index model to measure alphas. However, the investor may come close to this by subjectively correcting for size and growth.

In Table VII, I present some results from running in each year a cross-sectional regression of normalized cash flows against the lagged value of variables that have been shown to predict returns. The table reports the mean regression coefficient and the significance of the coefficients from the regres-

Table IV

Annual Alpha and Annual Expenses in Performance Period when Ranking Four Index Alphas in Selection Period

The table shows the average annual four index alpha and expense ratio in percentage for a one year holding period where the deciles were formed using the one year four index alpha and for a three year holding period where the deciles were formed using the three year four index alpha. The sample consists of the 227 funds that existed in January 1982. The sample period is from January 1985 to December 1994.

	1 Year Analysis		3 Year Analysis	
Decile	α	Expenses	α	Expenses
Worst 1	−2.587	1.405	−2.679	1.539
2	−1.074	1.061	−0.524	1.044
3	−0.449	1.007	−0.310	1.034
4	−0.531	0.968	−0.679	1.035
5	−0.237	0.994	−0.159	0.924
6	−0.474	0.962	−0.366	0.976
7	0.531	0.986	0.134	0.949
8	0.062	1.016	0.055	0.996
9	−0.156	1.043	0.690	0.980
Best 10	0.819	1.052	0.879	1.029
SRC[a]	0.891*	0.164	0.903*	0.588

[a] SRC = Spearman Rank Coefficient.
* Significant at 1 percent level.
** Significant at 5 percent level.

mance should also predict cash flows. In fact, this is exactly what happens.[12] Furthermore, it happens with any return based ranking of funds during the selection period and any reasonable definition of cash flows.[13]

I employed two different definitions of new cash flows to a fund. They each start by defining new cash flows as the change in total net asset value minus the appreciation in the funds assets. Appreciation is calculated as the total net asset value at the beginning of the period times the rate of return the fund earned during the period. This is equivalent to defining new cash flows as the cash flow that is not due to dividends and capital gains. Put another way, it assumes all dividends and capital gains are left in the fund and measures cash flow into and out of the funds above that amount.

The first measure I employ is the dollar amount of the new cash flow into and out of the fund. The problem with this approach is that large funds tend to have larger absolute cash flows regardless of performance. A second and preferred measure (called normalized cash flow) divides each new cash flow by the net asset value of the fund at the beginning of the period. This measures

[12] As discussed in the conclusion discretionary flows are limited by the restricted choice offered by some retirement plans. The extent of this influence is worthy of further study.

[13] Other articles examining return and cash flows include Hendricks, Patel, and Zeckhauser (1993), Sirri and Tufano (1993), and Carhart (1994).

Table III

Performance Measured by Monthly Return

The table shows the average realized monthly percentage returns for one and three year holding periods where the deciles were formed using the ranking criteria shown at the top of each column. The sample consists of the 227 funds that existed in January 1982. The sample period is from January 1985 to December 1994.

Decile	Exp Ratio[a]	1 Year Return	1 Year 4 Index Alpha	Exp Ratio[a]	3 Year Return	3 Year 4 Index Alpha
	Panel A. 1 Year Holding Period			Panel B. 3 Year Holding Period		
Worst 1	0.977	0.936	0.879	1.003	0.944	0.874
2	0.995	1.080	1.066	1.035	1.086	1.083
3	1.073	1.112	1.060	1.056	1.164	1.093
4	1.096	1.064	1.103	1.122	1.095	1.081
5	1.092	1.104	1.098	1.123	1.135	1.110
6	1.155	1.092	1.065	1.124	1.116	1.137
7	1.120	1.146	1.184	1.147	1.117	1.142
8	1.126	1.162	1.175	1.148	1.104	1.132
9	1.124	1.087	1.072	1.124	1.113	1.189
Best 10	1.174	1.137	1.217	1.173	1.175	1.208
Spearman Rank Coefficient	0.903*	0.636	0.733**	0.927*	0.527	0.927*
Top decile–bottom decile	0.197**	0.201	0.338*	0.170*	0.231*	0.334*
Top decile–average of bottom 9	0.090***	0.050	0.139***	0.075**	0.077**	0.115**
Top 5 deciles–bottom 5 deciles	0.093*	0.066	0.101**	0.076*	0.040	0.113*

* Significant at 1 percent level.
** Significant at 5 percent level.
*** Significant at 10 percent level.
[a] Expense ratios are reported from high to low.

for all of the criteria used to forecast performance, and the results are the same as those presented in Table V. Expenses are not higher for top performing funds, nor do expenses increase more rapidly in the future for top performing funds.

VII. Predicting Cash Flows

We have just seen that performance is to some extent predictable. Furthermore, this performance is not included in price because 1) funds sell at net asset value and 2) good managers actually have lower expense ratios than bad managers, and they do not raise them as performance improves. If at least some investors are aware of this, then the same metrics that predict perfor-

importance. For example, an investor buying the top decile of funds ranked on α^4 would have earned a risk adjusted return of more than 3/4 of a percent per year over the years 1985–1994.

Examination of Table II, Panel B, which assumes a three year selection period and a three year holding period, shows the same type of results as found in Panel A. Past four index alphas do a much better job of forecasting future risk adjusted returns than do either past unadjusted returns or past expenses. Here the superiority of using past alphas is even more striking, as seen by the size of the rank correlation coefficients, the differences in decile performance, and the statistical significance of the difference in these deciles. It is also worth noting that the size of risk adjusted returns (per month) is about the same over each year of the three-year period as it is over the one year holding period.

I find that alphas from the four index model do the best job of forecasting risk adjusted returns. This should be the relevant performance measure. However, some investors might be interested in forecasting raw return. In Table III, Panel A and Table III, Panel B, I present evidence on the ability of raw returns and the alpha from the four index model to forecast raw returns. The results indicate clearly that the four index model does a better job than past raw returns of forecasting future raw returns.

Before leaving this section, I want to examine whether the results obtained from forecasting risk adjusted returns by past alpha is really accounted for by differences in expenses in the performance period. Are we forecasting expenses and not risk adjusted performance? To see this, I examine the expenses in the performance period along with the risk adjusted performance (these are the same numbers as in Table II) when I forecast risk adjusted performance by past alpha from the four index model. It is obvious from looking at Table IV that the difference in the performance I obtain is due to successfully forecasting risk adjusted return, not forecasting expenses. While expenses provide information about future performance, past performance provides stronger and to some extent independent information about future performance.

VI. Expenses

I have presented evidence of persistence in mutual fund performance. Persistence can exist if superior management exists and it is not included in the price (costs) to fundholders. While it cannot be directly included in price, because funds are bought and sold at net asset value, it could be indirectly included in price through fees. It has been suggested that management prices excellent performance by charging higher fees. In fact, this is *not* the case. Table V shows the fees (computed on an annual basis) charged by funds that are ranked and separated into deciles by the four index alpha. The average fee is shown for each decile both in the year of ranking and in each of the following four years. It is obvious that the top ranked funds have fees that are about the size of the average fund and lower than the bottom deciles. The expense ratio for the top performing funds goes up more slowly over time than the expense ratio for the bottom performing funds. Expense ratios over time were examined

Table II

Performance Measured by Monthly Four Index Alpha

The table shows the average realized monthly four index alphas in percentage for one and three year holding periods where the deciles were formed using the ranking criteria shown at the top of each column. The sample consists of the 227 funds that existed in January 1982. The sample period is from January 1985 to December 1994.

Decile	Exp. Ratio[a]	1 yr return	1 yr 4 Index alpha	Exp. Ratio[a]	3 yr return	3 yr 4 Index alpha
	Panel A. 1 Year Holding Period			Panel B. 3 Year Holding Period		
Worst 1	−0.154	−0.200	−0.216	−0.143	−0.159	−0.223
2	−0.111	−0.033	−0.090	−0.079	−0.054	−0.044
3	−0.063	−0.022	−0.037	−0.069	0.023	−0.026
4	−0.018	−0.050	−0.044	−0.001	−0.036	−0.057
5	−0.017	−0.021	−0.020	−0.002	0.003	−0.013
6	0.023	−0.054	−0.039	0.010	0.013	−0.031
7	0.041	0.009	0.044	0.047	−0.013	0.011
8	−0.016	0.032	0.005	0.013	−0.049	0.005
9	−0.018	−0.016	−0.013	−0.018	−0.007	0.058
Best 10	−0.002	0.015	0.068	−0.008	0.028	0.073
Spearman Rank Coefficient	0.697**	0.782*	0.891*	0.552	0.503	0.903*
Top decile–bottom decile	0.152*	0.214**	0.284*	0.135*	0.187*	0.297*
Top decile–average of bottom 9	0.035	0.054	0.114*	0.018	0.059**	0.109*
Top 5 deciles–bottom 5 deciles	0.078*	0.062***	0.094*	0.088*	0.039**	0.096*

* Significant at 1 percent level.
** Significant at 5 percent level.
*** Significant at 10 percent level.
[a] Expense ratios are reported from high to low.

differences between deciles (portfolios) reported in the table is not as large as it is for the other forecasters, and a positive risk adjusted return cannot be earned by purchasing the top decile of funds. When we compare returns and past four index alphas as a forecaster of future risk adjusted return, the four index risk adjusted returns yield stronger results. The top decile gives larger returns, the difference between combinations of deciles is larger, and the results are statistically significant more often.[11] The results are of economic

[11] Other interesting results not reported in the tables are that using the previous three year value for return or alpha leads to results that are often significant, but not as strong as using the one year prediction discussed above. In addition, if we assume that the investor only ranks funds which have an ρ^2 above 0.80 in the selection period (only consider funds for which the four index model works well) the results are even stronger than those reported in this article. For example, the α on the best group goes up from 0.068 to 0.094.

both raw returns and risk adjusted four index αs over both one year and three year intervals.

I judge how well each measure of performance forecasts a future measure of performance by using the following methodology. At the end of each year, funds are ranked and placed into deciles on the basis of a particular selection criterion, e.g., past returns. The performance of each decile measured in several ways is computed over a one and three year holding period. I call the first period the selection period and the second period the performance period. The statistical significance of the results is estimated in two ways: first, from the rank correlation of deciles in the selection and performance period; second, by computing the mean and standard deviation of the time series of differences in the excess return on deciles and testing whether these differences are statistically different from zero.

The methodology I use in this article is free of survivorship bias. To estimate alphas in the selection period, I eliminate all funds that do not have at least 30 months of data available. Since this is known before the forecast is made, an investor could follow this rule. I use a "follow the money" approach for all funds that disappeared during the performance period. Over the performance period alphas are computed for each fund separately, and the alpha for each decile is computed by treating the decile as an equally-weighted portfolio of the alphas of each fund. This approach differs from that usually taken of estimating the betas and alphas from a time series of the returns for a decile. This methodology is superior because the composition and the risks (betas) on each decile (portfolio) changes year to year.[9]

Some typical results using this methodology are shown in Table II. In Table II, Panel A, I present the monthly risk adjusted excess return from the four index model (α^4) that would be obtained by holding deciles of funds for one year where the deciles are formed on the criteria listed at the top of each column. The table also shows the difference between deciles and whether these differences are statistically significant.[10]

Note that each forecaster examined in the table supplies information about the future performance of funds calculated on the basis of the four index model. All of the rank correlations in Panel A are statistically significant at the 1 percent level except for expenses, which is statistically significant at the 5 percent level. Examination of Panel A shows that using the four index alpha does a better job of forecasting future risk adjusted performance than past returns and that expense ratios, while still containing information, do the worst job.

Starting with expense ratios, we see that the investor is better off by buying funds with low expense ratios. While there is information in using expense ratios and in most cases it is statistically significant, the magnitude of the

[9] For example, the average regression coefficient on the growth variable for the highest decile changes from 0.27 to 0.40 to 0.62 to 0.38 from 1985 to 1989.

[10] Statistical significance of Spearman's rank correlation is based on small sample critical values as reported in Siegel and Castellan (1988). t-tests are used for the difference in means between deciles.

of assets in closed end funds, while they will pay 1 dollar for a dollar of assets in open end funds.

I would like to take an aside for a moment and point out that the above analysis has implications well beyond this article. We saw that selling a bundle of assets as an entity led to the bundle having different risks and a lower price than the assets in the bundle. Furthermore, the attributes of the bundle, e.g., its size, affected price and risk. This has implications for the securitization of any asset and suggests that there can be negative as well as positive aspects of securitization. Moreover, it has implications for pricing the claims on business firms. The firms may be priced as more than a bundle of assets and opportunities. Value additivity might not always hold. As we see in closed end funds, the way a set of underlying assets are aggregated affects their value. This should also be true for the aggregation of assets in a corporation.

There are other reasons why there can be different pricing for open end funds than for closed end funds. There can be differences in services provided. There can be differences in the tax liability imbedded in the price of the funds. There can be differences in the percentage of the funds held in restricted stock. I believe differences in services are relatively small; I see no reason why imbedded taxes should be higher for closed end than for open end funds; and while closed end funds tend to hold more restricted stock than open end funds, given the size and investment policy of many of the funds in my sample, this should be a minor effect and should at most account for a small part of the difference in pricing.

The final reason I believe investors pay more for net assets in open end funds than they pay in closed end funds is that the value of management in open end funds is not priced, while in closed end funds it is priced. This means that if investors believe that superior management exists and they can predict it, then they can buy it for no cost in open end funds and earn a superior return. They cannot do the same for closed end funds, for expectations of management performance should be incorporated in the price of the fund.

If management ability exists and it is not included in the price of open end funds, then past performance should be predictive of future performance. This is the subject to which I now turn.

V. The Persistence of Performance

The surprising thing about persistence is not that it exists, but rather how strong it appears to be.[8] I focus on predicting both returns and risk adjusted returns from the four index model. Expenses, raw returns, αs from the one index model and αs from the four index model all have predictive ability for

[8] A number of articles have appeared recently discussing persistence. See, for example, Brown and Goetzmann (1995), Elton, Gruber and Blake (1996), Malkiel (1995), Carhart (1994), and Sharpe (1996). Sharpe (1996) is particularly interesting, for it examines evidence of persistence across a sample that includes both U.S. and international bond and stock funds.

alphas is 81.6 basis points per year. While this number may seem surprisingly high, it seems more realistic when we note that 62.5 percent of the difference in net performance is accounted for by the fact that the expenses charged by closed end funds were lower (by 51 basis points per year) than those charged by open end funds.

Table I also reveals that in terms of return on net asset value, the four index model does almost as good a job of explaining returns for closed end funds as it does for open end funds. Furthermore, closed end funds show the same tilt (although not as pronounced) in favor of growth stocks and small stocks, as was shown by open end funds.

It is possible that having a market price that differs from net asset value changes the characteristics of a share in a closed end fund. One way to see this is to examine the return on net asset value compared to the return earned by investors from holding the fund. For the sample under study, the average variability in the market return in funds was 17 percent greater than the variability of the return on the underlying assets, while the residual risk from the four index model was 140 percent greater. Market returns on shares were clearly acting differently than the return on the assets that underlie the shares. To get more insight into this, I studied the difference between the market return and the net asset return. When this difference in return is regressed against the four index model, the sensitivities (betas) on two variables are significantly different from zero at the 5 percent level: the growth-value variable, which has an average beta of -0.325, and the small versus large variable, which has a beta of $+0.142$ for the average fund. The fact that the size variable has a positive coefficient means that there is an additional systematic risk due to a size effect, and funds are priced as small stocks even after removing the size effect due to the capitalization of the companies owned by the funds. Furthermore, this additional small stock risk (beta) is cross-sectionally related to the size of the fund: the smaller the total net asset value of the fund, the higher its beta with the small minus large variable. The market prices a fund not only by the characteristics of the assets it holds, but also according to the characteristics of the fund itself.

The same type of phenomenon occurs with respect to the growth variable. In interpreting the growth index, it is useful to note that for a cross section of individual stocks, the growth index is inversely correlated with the book-to-market ratio. I find that while the growth index is positively related to the net asset value (NAV) return of the fund (see Table I), the differential return (market return-NAV return) is related to the growth index at a negative and statistically significant level. Closed end funds are priced as if they have higher book-to-market ratios than exist for the underlying assets these funds own. In addition, there is a cross-sectional relationship, this time positive, between the ratio of price to net asset value at which a fund sells and its sensitivity (beta) with the growth variable.

It is clear that closed end funds have both systematic risk and nonsystematic risk that are different from that of the assets these funds hold. This can account for part of the reason why investors will not pay 1 dollar for a dollar

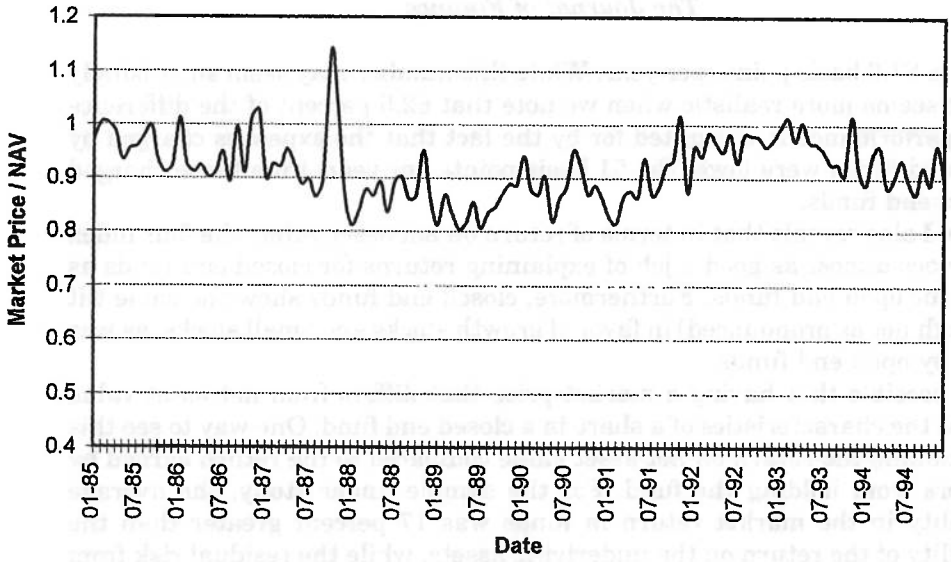


Figure 1. Average market price/net asset value. The figure shows the average market price/net asset value ratio for a sample of nine closed end funds from January 1985 to December 1994.

IV. Closed End Mutual Funds

A sample of closed end funds was constructed, using the same criteria as I used for open end funds, from among all funds listed in "Lipper Analytical and Closed End Survey" of March 1985. Recall that the funds selected (9 in total) are domestic nonspecialized common equity funds.

As shown in Figure 1, in almost each month in our sample period the average ratio of price to net asset value (Q ratio) is below one. Given that investors pay $1 for every dollar of net assets in open end funds, why do closed end funds sell at less than $1 for every dollar of net assets under management? There are several possible explanations. Three of these are that the management of closed end funds is inferior to that of open end funds, that the bundling and marketing of the underlying assets (securitization) in a closed end fund changes their characteristics, and the fact that management is priced and changes value.

The most apparent possible explanation is that management of closed end funds is not as good in security selection as that of open end funds. To examine this, I compute the net asset value return as the percentage change in net asset value, including dividends reinvested at net asset value. This is analogous to the way returns are calculated on open end funds. The results of calculating the estimates of performance for closed end funds are shown on the bottom line of Table I. Note that closed end funds have better performance than open end funds whether performance is measured by raw returns, alpha from the one index model, or alpha from the four index model. Focusing on the four index model, which I believe is the most appropriate measure, the difference in

example, in 1994 there were 44 S&P 500 index funds with a range of expense ratios from 19 basis points (7 basis points for institutions) to 135 basis points. Forty-five basis points was the average expense ratio for all S&P 500 index funds. Bond index funds, small stock index funds, growth index funds, and value index funds were available with expense ratios below 30 basis points, although index funds also existed in these categories with much higher expense ratios.

It seems reasonable to assume that the intelligent investor who is interested in holding an index fund will choose one with a low expense ratio. Many index funds exist that have expense ratios below 30 basis points, provide all, or at least most, of the services provided by actively managed funds, and cover the types of securities in terms of size and growth implied by my model. There is still a question of how well these funds do versus the indices they hold. Two concerns are that they may underperform the indices because of transaction costs and that they may not track the indices very closely.

I used five years of data (1990–1994) to examine S&P 500 index funds, small stock index funds, and bond index funds. A shorter two-year period was used to examine value and growth index funds because more data was not available. For funds that prior to the start of the regression had reported expense ratios of 30 basis points or less, I regressed the monthly return on each index fund on the monthly return on the index the fund selected as a target to track.[7] The average R-squared was 0.997, and the minimum was 0.986. The average beta was 0.999, with a range of 0.991 to 1.004. The average annualized alpha was minus 20.2 basis points, compared to an average expense ratio of 21.9 basis points. Some of the index funds had alphas that were lower than their expense ratios; some were higher, but all differences were quite small.

While index funds were not available for the whole period, over the last five years of the period and certainly today, index funds exist that cover the range of securities held by the type of mutual funds examined in this study. It is also clear that low cost index funds exist that provide most of the services provided by actively managed funds and match the index they purport to match at a cost of about 22 basis points per year.

This brings us back to the initial puzzle. Why do individuals continue to buy actively managed mutual funds when such funds have lower risk adjusted returns than index funds? This behavior has to be based on either differences in service that appear small or else the belief that, because management is not priced, investors can select actively managed funds that will return superior performance.

We can gain added insight into this possibility by examining a type of actively managed fund where management is priced: closed end mutual funds.

[7] The exception to this was the growth and value funds. The time series of data was so small that I looked ahead at expenses in selecting these funds so that I could use data over their existence for the regression.

investment policies we know are associated with funds with differing stated objectives is additional evidence that employing the multi-index model leads to more accurate performance evaluation. For these reasons I shall emphasize the use of the four index model throughout the rest of this article. However, I will also report some results based on unadjusted returns and risk-adjusted returns from a single index model.

Throughout this article, I employ a sample that is free of survivorship bias. The importance of this can be seen by examining the data on nonsurviving funds in Table I, which shows the performance of funds that disappeared from the sample because of mergers or policy change. These funds underperformed the market by 5.18 percent per year, had a one index adjusted annual return of −4.2 percent, and a four index adjusted return of −2.75 percent per year. Failure to include funds that disappeared would result in a serious overestimate of performance.

Finally, it is interesting to note that the overall performance of no load funds is virtually indistinguishable from that of load funds. While the performance is measured after deducting expenses, it is computed before load fees (as if load fees did not exist). Under any reasonable assumption about holding periods, investors in load funds had poorer performance than did investors in no load funds.

My results indicate that mutual funds underperform an appropriately weighted average of the indices by about 65 basis points per year. Expense ratios for my sample averaged 113 basis points per year. These numbers suggest that active management adds value, but that mutual funds charge the investors more than the value added.

III. Index Funds

Since mutual funds underperformed an appropriate set of indices by 65 basis points, why not simply hold the indices or at least the closest thing we can find to the indices: index funds? The answer is that over most of the period they didn't exist, or more correctly they did not exist with the low cost and the range of characteristics in which investors seemed interested. At the start of 1985, there were only three S&P 500 index funds available, two small stock funds, and no growth, value, or bond funds. Furthermore, the average expense ratio of the S&P 500 index funds was 1.24 percent per year, while for the small stock funds it was 0.875 percent per year. These expenses were higher than the amount by which the average mutual fund underperformed the risk adjusted benchmark. By 1989, the number of index mutual funds had grown to 26, and the dollar amount under management had grown from $527 million to $4.4 billion. The number of funds attempting to replicate the S&P 500 index had grown to 7, with a range of expense ratios from 21 basis points to 147 basis points per year. The average expense ratio was still high at 75 basis points.

By 1994, there were more than 100 index funds with $36.8 billion under management. Index funds existed that covered a wide variety of domestic and international securities. Expense ratios had come down but still varied. For

Table I

Average Monthly Performance

The table shows the average realized monthly percentage returns net of the S&P 500 and average coefficients from a time series regression of excess percentage returns against the single index and four index models. The sample consists of 270 open end funds and 9 closed end funds. The sample period is from January 1985 to December 1994.

Single Index Model:

$$R_i - R_f = \alpha_i^1 + B_{Mi}^1(R_M - R_f) + e_i$$

Four Index Model:

$$R_i - R_f = \alpha_i^4 + B_{Mi}^4(R_M - R_f) + B_{Si}(R_S - R_L) + B_{Gi}(R_G - R_V) + B_{Bi}(R_B - R_f) + e_i$$

where

R_i = the return on fund i.
R_f = the return on a thirty day T-Bill.
R_M = the return on the S&P 500 index.
$R_S - R_L$ = the difference in return between a small cap portfolio and a large cap portfolio.
$R_G - R_V$ = the difference in return between a high growth portfolio and a high value portfolio.
$R_B - R_f$ = the excess return on a bond index which represents an estimate of aggregate corporate and government bonds.

Fund Type	$R_i - R_M$	α^1	B_M^1	ρ^2	α^4	B_M^4	B_S	B_G	B_B	ρ^2
Open end funds										
All funds	−0.162	−0.130	0.963	0.810	−0.054	0.850	0.314	0.229	0.090	0.886
No load funds	−0.164	−0.127	0.964	0.800	−0.056	0.849	0.300	0.243	0.098	0.897
Load funds	−0.162	−0.134	0.966	0.830	−0.054	0.850	0.331	0.229	0.086	0.873
Maximum capital gains	−0.125	−0.182	1.073	0.780	−0.035	0.889	0.466	0.433	0.092	0.897
Growth	−0.154	−0.131	0.978	0.810	−0.045	0.860	0.306	0.264	0.077	0.886
Growth and income	−0.213	−0.073	0.829	0.840	−0.088	0.796	0.175	−0.031	0.108	0.878
Nonsurviving funds	−0.432	−0.350	0.929	0.710	−0.229	0.781	0.391	0.290	0.095	0.801
Closed end funds										
All funds, NAV return	−0.135	−0.031	0.864	0.780	0.014	0.787	0.193	0.153	0.077	0.820

sensitivity of mutual funds categorized by objective to each of our indices generally fits the way we expect such funds to behave. For example, funds that are categorized as seeking maximum capital gains have higher loadings on small stocks and growth stocks than do either growth funds or growth and income funds. Notice that growth and income funds have negative loadings on growth (positive on value), while more growth oriented funds have positive loadings on growth. The ability of the four index model to correctly capture the

uating the sample, I use a "follow the money" approach. If a policy change took place, I assume the investor placed his or her money in the average surviving fund. If a fund merged into another fund, I assume the investor placed his or her money in the fund that continued to exist after the merger.[4] The literature contains no evidence as to what investors do when a fund merges into another fund. I was able to obtain data on two cases where a fund merged into a fund managed by a separate organization. In both cases, over 90 percent of the money remained invested with the acquiring fund.

In order to understand why investors hold mutual funds, I start out by examining the average performance of mutual funds. Table I presents the monthly performance of the average mutual fund in my sample for the years 1985–1994. Whether one judges performance by returns relative to the market, risk adjusted returns from a single index model, or risk adjusted returns from a four index model, mutual funds underperformed the benchmark. Simply looking at unadjusted returns, we would conclude that mutual funds underperformed the market by 1.94 percent per year.[5] Since the average mutual fund in the sample had a beta smaller than one (0.96) and the market had a high rate of return during this period, this number understates performance. Using the single index model, the risk adjusted return is estimated to be −1.56 percent. Finally, the four index model suggests that mutual funds underperformed by 65 basis points per year. This ordering of performance results is very different from other studies that have used multi-index models adjusting for classes of securities.[6] What accounts for this difference in results? Examining the regression coefficients in Table I shows that mutual funds during this period tended to hold stocks that were smaller and more growth oriented than the combination of stocks in the S&P 500 index. In fact, this tendency is also present in earlier periods. During the 1985–1994 period, large stocks had a higher return than small stocks and value stocks had a higher return than growth stocks. In earlier periods small stocks had a higher rate of return than large stocks. This accounts for the different ordering of the models in this and earlier articles and shows that failure to include indices that span the type of securities a fund holds makes performance estimates more a matter of how the excluded categories of stocks did than how well management could select securities.

Table I shows that the four index model we employ does an excellent job of explaining mutual fund return behavior. The model explains 89 percent of the variability of return for the average fund in the sample. Also note that the

[4] The data presented shortly remain virtually unchanged under the alternative assumption that the investor reinvests in the average surviving fund in the sample. After the initial tables I employ this alternative reinvestment assumption.

[5] While all tables in the article report results on a monthly basis and all analysis was done on a monthly basis, I often report summary statistics in the text by multiplying the monthly data by 12 (an approximation to an annual basis).

[6] Most past studies, because of the performance of small stocks in the period studied, have found that the single index model overstates performance relative to a multi index model. See for example, Elton et al. (1993).

$R_{st} - R_{lt}$ = the difference in return between a small cap portfolio and a large cap portfolio based on Prudential-Bache indices in month t[3]

$R_{gt} - R_{vt}$ = the difference in return between a high growth portfolio and a value portfolio based on Prudential-Bache indices in month t

$R_{dt} - R_{ft}$ = the excess return on a bond index that represents an estimate of aggregate corporate and government bonds

β_{ki} = the sensitivity of the excess return on fund i to portfolio k where k can represent the market, a size factor, a growth factor, or a bond factor. When k represents the market, the superscript on beta indicates whether it came from the single index or the four index model.

$\alpha_i^1 \alpha_i^4$ = the risk adjusted excess return measured from the one index and the four index model respectively.

Note that all indices in equation (2) and (3) are computed as zero investment portfolios. This implies that the intercept (α) of a time series regression of a random portfolio against the indices should be zero.

In this article I will emphasize the results obtained using equation (3). I do so because as we shall see shortly, failure to include indices that span the major types of securities held by the funds under study can lead to incorrect conclusions about performance. The indices selected for the four index model span the major types of securities held by nonspecialized domestic stock funds, the type of fund examined in this study.

The sample of mutual funds used in this study consists of all common stock funds listed in Wiesenberger's *Mutual Funds Panorama* at the end of 1984, with certain exceptions. Mutual funds that were listed as foreign stock funds, specialized stock funds, or balanced funds were omitted from the sample. Including these funds would have involved adding additional indices to span the space covered by their investments. In addition, mutual funds with less than $15 million in assets at the end of 1984 were excluded because it was difficult to find consistent data on their performance and activities over time. The results in this article should be thought of as applying to a particular type of fund the characteristics of which are determined in advance.

The initial sample consisted of 270 mutual funds. The sample selected accounts for 77.2 percent of the assets held by all common stock funds in existence at the time the sample was constructed (end of 1984). Of these funds, 35 merged and 21 funds changed policy (no longer categorized as a common stock fund) during the period 1985–1994. To avoid survivorship bias in eval-

[3] The size index and growth index were constructed from the Prudential-Bache indices as follows: a) The small stock index is the average of the return on the small cap value index and the small cap growth index. Similarly, the large stock index is the average of the return on the large cap value and large cap growth index. The growth index is the average of the return on the large cap, mid cap, and small cap growth indices. The value index is the average of the return on the three size value indices.

- Customer Services—including record keeping and the ability to move money around among funds
- Low Transaction Costs
- Diversification
- Professional Management (Security Selection)

The first three reasons, service, low transaction costs, and diversification, are provided by both active and passive (index) funds. What distinguishes the active fund is the fourth reason: professional management.

While the overall performance of professional management is frequently discussed, there is a more subtle question about performance related to the way open end mutual funds are priced. Open end mutual funds sell at net asset value. If "good management" exists, a fund that has superior management will sell at net asset value, just as a fund that has inferior management will sell at net asset value. Management is, per se, not priced. There is a counter argument that management is priced in the long run, because management raises the fees and expenses it charges customers to reflect "good management." However, the evidence I present shows that high fees are associated with inferior rather than superior management.

Clearly, one key aspect of why investors might buy mutual funds is performance. To study performance, one needs both a model to measure performance and a sample of funds to study.

II. Average Performance

In this section of the article and in many of the following sections, I will use several different measures of performance. These include:

1) A measure of return relative to the market
2) The excess return from a single index model
3) The excess return from a four index model.

More formally I will measure performance from the following equations:

$$R_{it} - R_{mt} \tag{1}$$

$$R_{it} - R_{ft} = \alpha_i^1 + \beta_{mi}^1(R_{mt} - R_{ft}) + e_i \tag{2}$$

$$R_{it} - R_{ft} = \alpha_i^4 + \beta_{mi}^4(R_{mt} - R_{ft}) + \beta_{si}(R_{st} - R_{lt}) + \beta_{gi}(R_{gt} - R_{vt}) + \beta_{di}(R_{dt} - R_{ft}) + e_i \tag{3}$$

where

R_{it} = the return on fund i in month t
R_{ft} = the return on a thirty day T-bill in month t
R_{mt} = the return on the S&P 500 index in month t

managed funds even if they underperform indices. Holding the indices may be an unrealistic or costly alternative. I examine whether index funds exist that attempt to match the indices and how they perform relative to indices. If index funds exist that outperform actively managed funds, and if they provide most of the services offered by actively managed funds, the puzzle of why investors buy actively managed funds is intensified.

One possible explanation of why investors buy actively managed open end funds lies in their pricing. These funds sell at net asset value. This means that if management ability exists, it may not be incorporated in price. I first try to gain more insight into this by examining a type of mutual fund for which management ability should be included in price: closed end mutual funds.

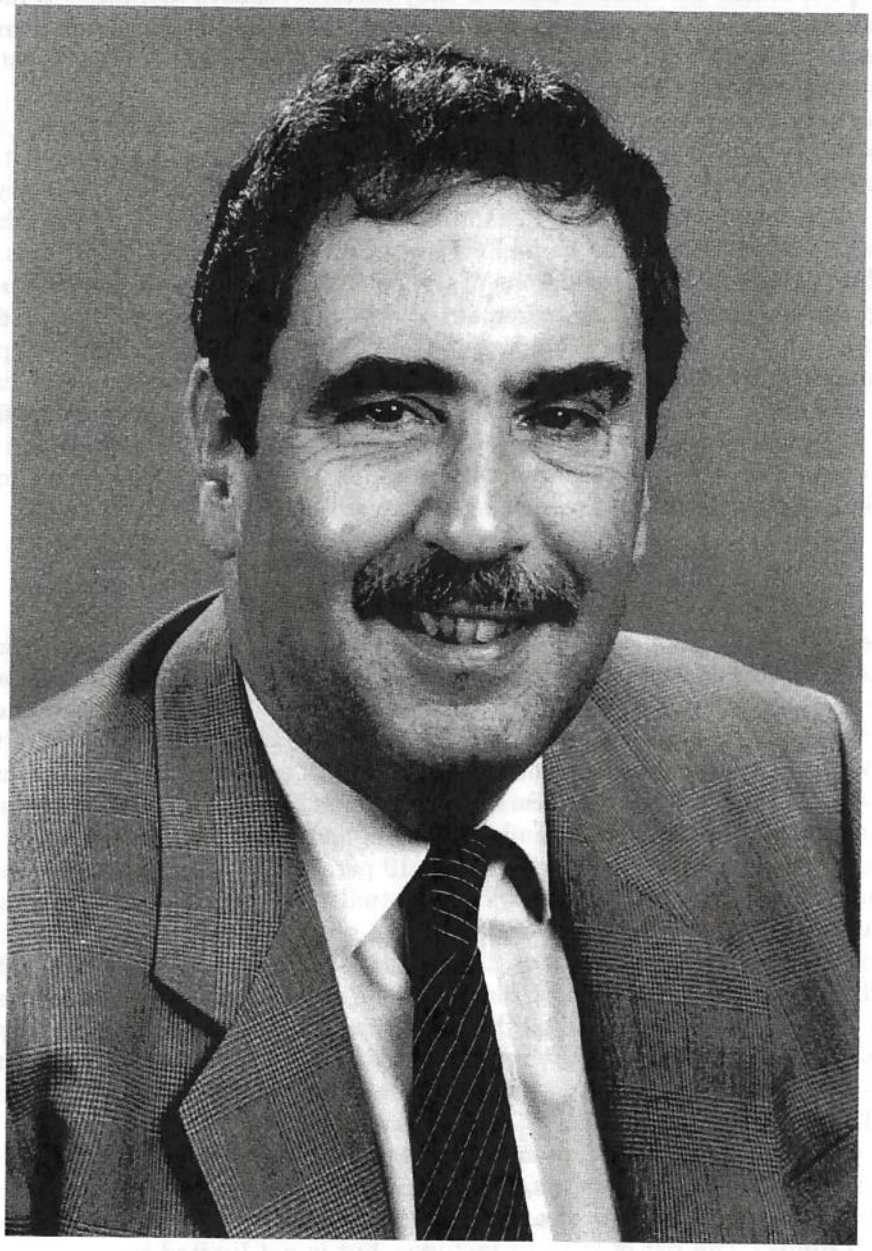
I then return to the implications of the pricing of open end funds by examining a series of issues. If management ability exists and it is not included in the price of open end funds, then performance should be predictable. If performance is predictable and at least some investors are aware of this, then cash flows into and out of funds should be predictable by the very same metrics that predict performance. Finally, if predictors exist and at least some investors act on these predictors in investing in mutual funds, the return on new cash flows should be better than the average return for all investors in these funds.

I. Industry Perspective

Needless to say, this study deals with a significant phenomenon in financial markets. There has been a tremendous and persistent growth in the importance of the mutual fund industry over the past twenty years. This is true whether one measures growth by assets under management, number of mutual funds, or the number of academic articles concerned with some aspect of the mutual fund industry. Over the past twenty years, the compound annual growth rate in assets under management by mutual funds has been greater than 22 percent, while for the past 10 years it has been greater than 19 percent. At the end of 1994, there was more than $2.1 trillion invested in mutual funds, making mutual funds, measured by assets under management, the second largest type of financial intermediary in the United States, falling just short of commercial banks, but ahead of life insurance companies. Since I will be examining mutual funds investing in stock, I should point out that this is both the fastest growing and the largest category of mutual funds. Equity mutual funds accounted for 40.1 percent of the assets under management by all mutual funds in the United States. These funds held 12.2 percent of the total of all corporate equity.

A logical question to ask is what accounts for the appeal of mutual funds, and in particular actively managed mutual funds, as an investment vehicle. There have been a number of articles written about the reasons for holding mutual funds.[2] The list of reasons includes, but is not limited to:

[2] See for example, Sirri and Tuffano (1992). I have also included in the References a number of other articles on mutual fund performance that are not otherwise cited in this paper.



Martin J. Gruber
President of the American Finance Association
1996

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Another Puzzle: The Growth in Actively Managed Mutual Funds

MARTIN J. GRUBER*

ABSTRACT

Mutual funds represent one of the fastest growing type of financial intermediary in the American economy. The question remains as to why mutual funds and in particular actively managed mutual funds have grown so fast, when their performance on average has been inferior to that of index funds. One possible explanation of why investors buy actively managed open end funds lies in the fact that they are bought and sold at net asset value, and thus management ability may not be priced. If management ability exists and it is not included in the price of open end funds, then performance should be predictable. If performance is predictable and at least some investors are aware of this, then cash flows into and out of funds should be predictable by the very same metrics that predict performance. Finally, if predictors exist and at least some investors act on these predictors in investing in mutual funds, the return on new cash flows should be better than the average return for all investors in these funds. This article presents empirical evidence on all of these issues and shows that investors in actively managed mutual funds may have been more rational than we have assumed.

I HAVE BEEN DOING research on various aspects of mutual fund performance for a number of years.[1] The more time I spent thinking about mutual funds, the more I was troubled by a question: why do investors buy actively managed mutual funds? Some parts of the answer are suggested in the literature of financial economics; some are not. In this article, I try to provide at least a partial answer by presenting empirical evidence on various pieces of this puzzle.

First, I briefly examine the importance of the open end mutual fund industry and the reasons for holding mutual funds. Next, I examine how well actively managed open end equity funds have performed relative to an appropriate set of indices. If active funds provided superior performance, there would be no puzzle. However, at the risk of giving away a punch line early, I will tell you that the average actively managed fund has negative performance compared to a set of indices. There is a possible explanation of why investors buy actively

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[1] See for example, Elton, Gruber, Das, and Hlavka (1993), Blake, Elton, and Gruber (1993), and Elton, Gruber, and Blake (1996a and 1996b).

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Financial advisors: A case of babysitters?

Andreas Hackethal [a], Michael Haliassos [a,c,d], Tullio Jappelli [b,c,e,*]

[a] House of Finance, Goethe University Frankfurt, Grueneburgplatz 1, D-60323 Frankfurt am Main, Germany
[b] Department of Economics, University of Naples Federico II, Via Cinzia 45, 80126 Naples, Italy
[c] CEPR, Centre for Economic Policy Research, London, United Kingdom
[d] CFS, Center for Financial Studies, Frankfurt, Germany
[e] CSEF, Centre for Studies in Economics and Finance, Naples, Italy

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ABSTRACT

We use two data sets, one from a large brokerage and another from a major bank, to ask: (i) whether financial advisors are more likely to be matched with poorer, uninformed investors or with richer and experienced investors; (ii) how advised accounts actually perform relative to self-managed accounts; (iii) whether the contribution of independent and bank advisors is similar. We find that advised accounts offer on average lower net returns and inferior risk-return tradeoffs (Sharpe ratios). Trading costs contribute to outcomes, as advised accounts feature higher turnover, consistent with commissions being the main source of advisor income. Results are robust to controlling for investor and local area characteristics. The results apply with stronger force to bank advisors than to independent financial advisors, consistent with greater limitations on bank advisory services.

1. Introduction

In recent years households have increased their exposure to financial risk taking, partly in response to the demographic transition and increased responsibility for retirement financing. Recent research points to differential financial literacy and sophistication across households, creating the potential for important distributional consequences of these developments (Campbell, 2006; Lusardi and Mitchell, 2007).

In principle, financial advisors could ameliorate consequences of differential ability to handle finances by improving returns and ensuring greater risk diversification among less sophisticated households. Indeed, delegation of portfolio decisions to advisors opens up economies of scale in portfolio management and information acquisition, because advisors can spread information acquisition costs among many investors. Such economies of scale, as well as possibly superior financial practices of advisors, create the potential for individual investors to improve portfolio performance by delegating financial decisions. But delegation entails costs in terms of commissions and fees, and might give rise to agency problems between advisors and firms and between advisors and poorly informed customers, as shown by Inderst and Ottaviani (2009): on the one hand they need to sell financial products and on the other they need to advise customers on what is best for them to do.[1] The notion that financial advisors tend to be used by less informed or unsophisticated investors who could be easily misled by them, underlies much of the existing literature on financial literacy, the possible role of financial advice and the case for regulation of financial advisors.

In this paper, we examine three questions. First, we ask whether financial advisors tend to be matched with poorer, uninformed investors or rather with richer, experienced investors with higher opportunity cost of time. Second, how brokerage accounts run by individuals without financial advisors actually perform compared to accounts run by (or in consultation with) financial advisors. Third, whether the estimated contribution of financial advisors is persistent across different advisory models such as independent financial advisors (IFA) and bank financial advisors (BFA). Direct performance comparisons are made possible by two unique administrative data sets: one from a large German brokerage firm that allows its clients choice of whether to run their accounts

* Corresponding author at: Department of Economics, University of Naples Federico II, Via Cinzia 45, 80126 Naples, Italy. Tel.: +39 081 675042; fax: +39 081 675014.

E-mail addresses: hackethal@gbs.uni-frankfurt.de (A. Hackethal), haliassos@wiwi.uni-frankfurt.de (M. Haliassos), tullio.jappelli@unina.it (T. Jappelli).

[1] Stulz and Mehran (2007) review the existing empirical literature on the nature and implications of various conflicts mainly focusing on analysts.

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themselves or with the guidance of an independent financial advisor; and another from a large German commercial bank that offers (optional) advice to its customers with investment accounts. The answers we obtain provide a novel perspective on the role of financial advice in individual portfolio performance.

Our first data set, from the online brokerage, tracks accounts of 32,751 randomly selected individual customers. Our second data set contains full data of 4447 clients of a German branch-based commercial bank. Both data sets cover 34 months, from January 2003 to October 2005. In many respects, discussed in this paper, descriptive statistics for both samples paint a very similar picture of the role of financial advisors as econometric analysis that controls for investor and region characteristics.

We find that involvement of financial advisors lowers portfolio returns net of direct cost, worsens risk-return profiles, as measured by the Sharpe ratio; and increases account turnover and investment in mutual funds, consistent with incentives built into the commission structure of both types of financial advisors. If anything, negative advisory effects on portfolio performance are even stronger for BFAs than for IFAs. This is consistent with greater limitations faced by BFAs in the range of products they offer and in the way they can confer financial advice to clients.

Regression analysis of who delegates portfolio decisions presents a further twist. It suggests that advisors are matched with richer, older, more experienced, self-employed, female investors rather than with poorer, younger, inexperienced and male ones. In this respect, advisors are similar to babysitters: babysitters are matched with well-to-do parents, they perform a service that parents themselves could do better, they charge for it, but observed child achievement is not boosted by babysitters but by positive characteristics of the family. No issues of regulating babysitters emerge, however, because the nature of the activity and the contribution is known to all parties involved.

The paper is organized as follows. In Section 2 we discuss the role of financial advice in overcoming investors' informational constraints and their incentives in handling financial portfolios in view of relevant existing literature. Section 3 describes the brokerage and the commercial bank data sets, the measures that we use to characterize portfolio performance, and the estimation procedure. Section 4 compares records of account performance with and without involvement of financial advisors. Section 5 studies econometrically the role of investors' characteristics in determining which investors are matched with financial advisors. Section 6 reports regression estimates of the effects of independent financial advisors on account performance, return variance, Sharpe ratios, trading frequency, turnover, and diversification. Section 7 presents similar results from the second sample on bank financial advisors. Section 8 concludes.

2. The role of financial advice

There is a limited but budding theoretical literature on the possible role of financial advisors. Current theoretical work but also policy debate on financial regulation seem to be based on the idea that financial advisors know what is good for individual customers but have an incentive to misrepresent this and to take advantage of their customers, who are typically uninformed and cannot figure out the poor quality of advice. Regulation is then needed to make sure that this conflict of interests is dealt with.

In a recent pioneering paper, Inderst and Ottaviani (2009) analyze 'misselling', i.e. the practice of misdirecting clients into buying a financial product that is not suitable for them. Their model emphasizes the internal agency problem between the firm and its sales agents. The agency problem is complicated by the fact that sales agents perform the dual task of prospecting for customers and of providing adequate advice to them on whether to buy a particular product. As a consequence, higher sales incentives will increase the likelihood that sales agents sell unsuitable products to customers. If this occurs, there is a probability with which the firm receives a complaint and has to pay a fine. To avoid misselling the firm can set internal suitability standards for advising customers and exert costly monitoring to verify compliance with these standards. The standards implemented by the firm in equilibrium are increasing in the fine (or equivalently in the reputation damage), the transparency of the incentive scheme, and in the effectiveness of monitoring, but they are decreasing in the sales incentives and the private cost for the agent to investigate the match between product and customer.

There are two relevant implications for our study. First, sales incentives can lead financial advisors to systematically recommend unsuitable products to their clients that entail suboptimal outcomes on the client side. Second, due to agency costs from multitasking and monitoring, a firm employing sales agents (such as BFAs) would be expected to choose lower standards than an entrepreneur (IFA). Our findings below are quite consistent with these predictions and provide two further insights: (i) advisors may affect portfolio outcomes not only by recommending unsuitable products but also by encouraging excessive trading; and (ii) the notion that advisors have an edge over their clients need not refer solely to unsophisticated clients, but also to experienced but inattentive ones who fail to monitor advisors and the outcome of their activities effectively.

The empirical literature on financial advice has so far mostly focused on whether professional analysts and advisors have an informational advantage to contribute to individual investors when it comes to predicting stock price movements. Ever since Cowles (1933), there have been questions regarding the ability of stock market forecasters and analysts to predict and reveal movements in the stock market.[2]

For example, Womack (1996) examines stock price movements following 'buy' or 'sell' recommendations by fourteen major US brokerage firms. He documents significant price and volume reactions in the direction of the recommendation, especially for new 'sell' recommendations. He concludes that there is value to these recommendations viewed as returns to information search costs. However, new 'buy' recommendations occur seven times more often than 'sell' recommendations, suggesting that brokers are reluctant to issue sell recommendations, both in order to avoid harming potential investment banking relationships and to maintain future information flows from managers.

Metrick (1999) analyzes a database of recommendations of 153 investment newsletters and finds no evidence that newsletters have superior stock-selection skill. Average abnormal returns are close to zero; and even the performance of the best newsletters seems to be driven more by luck then by skill. In related work, Anderson and Martinez (2008) examine abnormal returns around stock recommendations by Swedish brokers. A sizeable share of abnormal profits results from transactions before the recorded recommendation date, suggesting that tipping of customers may be taking place. However, given the small size of these abnormal profits (only 0.04% in yearly performance of total Swedish equity fund assets under management), the authors wonder whether clients are fully compensated for the costs of commissions charged by brokers.

Barber et al. (2001) explicitly take into account trading costs from following analyst recommendations. They analyze abnormal gross and net returns that would result from purchasing (selling

[2] Early studies include Barber and Loeffler (1993) on The Wall Street Journal's Dartboard column and Desai and Jain (1995) on "Superstar" money managers in *Barron's*.

short) stocks with the most (least) favorable consensus recommendations, in conjunction with daily portfolio rebalancing and a timely response to recommendation changes. Although they find that such strategies would yield annual abnormal gross returns greater than 4%, they also show that abnormal net returns are not statistically significant. Bergstresser et al. (2009) compare performance of mutual fund 'classes' distinguished by their distribution channel: directly sold to investors versus sold through brokers, with correspondingly different fee structures. They find that funds sold through brokers offer inferior returns, even before the distribution fee, no superior aggregate market timing ability, and exhibit the same return-chasing behavior as observed among direct-channel funds. Finally, more sales are directed to funds with larger distribution fees.

Our reading of the literature on informational contributions of analysts or brokers to direct stockholding is that these may be present but unlikely to be exploitable by individuals given the trading costs they entail. Therefore, in a world in which financial advisors solely provided security selection advice we would expect the effect of financial advice on abnormal portfolio returns to be around zero on average after transaction costs.

However, some researchers take a different angle and point out that, even if professional advisors do not have superior information that is exploitable for the normal trading within an individual account, they may be less likely to exhibit behavioral biases that hurt account performance. They could thus help either by running the account themselves or by encouraging investors to behave appropriately.

A behavioral bias that has received considerable attention is the 'disposition effect', i.e. the tendency of some individuals to sell winners and keep losers when it comes to direct stockholding (Odean, 1998). Shapira and Venezia (2001) found that the disposition effect is significantly less pronounced among professional than among self-directed investors. Well trained advisors could therefore aid their clients in reducing the disposition effect, potentially enhancing risk adjusted portfolio returns.

Advisors might also be simply able to moderate trading activity (Campbell and Viceira, 2003). Barber and Odean (2000) show that some investors trade excessively in brokerage accounts, suffering transactions costs that result in significantly lower returns. Such behavior is often attributed to overconfidence, especially pronounced among male investors (Odean, 1999; Barber and Odean, 2001). Shu et al. (2004) analyze the returns on common stock investments by 52,649 accounts at a brokerage house in Taiwan for 45 months ending in September 2001. They find a U-shaped turnover and performance relation rather than the monotonic one predicted by overconfidence: the most frequent traders in the top turnover quintile perform better than investors in the middle three quintiles. Other behavioral biases have been found to influence some individual investors. For instance, Venezia et al. (2011) focus on herding, and also document that professional investors herd less than amateurs, while Grinblatt and Keloharju (2001) suggest that investors trade on the basis of past returns, reference prices, or the size of holding period gain or loss.

While the list of potential behavioral biases can grow longer, an important question – consistent with our approach in this paper – remains as to whether individuals who exhibit such biases are likely to make use of professional investors. For example, Guiso and Jappelli (2006) argued that overconfidence (i.e. the disposition of investors to overstate the value of their private information) reduces their propensity to seek advice. Indeed, the Barber and Odean data come from a discount broker that does not offer advice. Even if overconfident traders approach financial advisors, one might wonder whether financial advisors who earn sales commissions would actually discourage them from executing too many trades without some incentive scheme.

On the other hand, financial advisors may help correct behavioral biases or investment mistakes when such correction is aligned with their interests. A case in point is diversification. A number of empirical studies find that many individual investors hold undiversified portfolios (see e.g. Campbell, 2006; Goetzmann and Kumar, 2008). Financial advisors who earn commissions for selling mutual funds have an incentive to promote such sales and through them diversification of their client's accounts. Shapira and Venezia (2001) find that the number of different stocks and the number of transactions per year is about three times as high for accounts managed by professionals than for self-managed accounts. This finding indicates that financial advisors might promote diversification through single stocks if they participate in brokerage commissions.[3]

Taken together, literature suggests an ambiguous effect of financial advice on net returns and risk profiles of client portfolios. Although it seems to be rather unlikely that advisors enhance portfolio performance through informational contributions they might in fact improve the risk-return profile by ironing out behavioral biases of their clients. Of course, such positive effects must exceed the cost of advice in order to yield an overall positive effect.

Our paper takes a direct approach to the issue of the role and contribution of financial advisors. Recognizing both the potential informational advantage and the potential contribution of professional investors to controlling behavioral biases and correcting investment mistakes, it compares directly portfolio returns (net of transactions costs) and portfolio risk levels that investors actually accomplish on their own versus what they accomplish with the guidance of a financial advisor. It does so with reference to portfolios actually chosen and adjusted by investors, which include directly held stocks, bonds, and mutual funds; and it accounts for a number of investors' and region characteristics observable in our data and for how they influence the tendency to use a financial advisor. Moreover, we are able to measure the effects of advice across two distinct advisory models (IFAs and BFAs).

3. Data, measurement, and estimation

3.1. Data on independent financial advisors

The first data set we use is administrative information from a large German brokerage firm. It covers the investments of 32,751 randomly selected customers. They all had an active account with the brokerage firm over the sample period from January 2003 to October 2005. If customers opened multiple accounts we consolidated them into one single account.

For each sampled customer we have information on date of birth, gender, marital status, profession (including status as employed or self-employed), zip-code of place of residence, nationality, and self-reported security-trading experience in years.[4] All information was collected by the brokerage firm on the date of account opening and updated according to new information that the firm has obtained from the customer in the interim.

On average (not excluding account owners aged under 18), sample customers held 38.6% of their account volume in the form of equity mutual funds, 47.4% in the form of single stocks (28%

[3] Moreover, Shapira and Venezia (2001) find that the round trip performance of professionally managed accounts is slightly (and for some specifications also statistically) higher than that of independently run accounts. The discrepancy to our own results is likely due to the fact that they focus on round trip returns for stock investments in one particular year, whereas we measure total portfolio returns for a longer time period, and in addition control for individual investor characteristics.

[4] Self-reported trading experience is reported on a scale with intervals equal to 5 years. We construct a variable that has the interval midpoints as values and then add the number of years that elapsed since account opening to approximate total trading experience at the beginning of our observation period.

thereof in German stocks), 2.4% in the form of bond mutual funds, 3.8% in the form of single bonds and the remainder in the form of structured investment certificates, warrants, and other securities.

Our administrative data set includes a variable that indicates whether a given brokerage customer is also a client of an IFA who registered with the brokerage firm. We know from the brokerage firm that, typically, advised customers were brought to the brokerage by IFAs. About 90% of IFAs registered with the brokerage are former employees of commercial banks advising customers on investment accounts. They decided to leave the bank and become independent, thereby offering lower costs than banks and greater choice of financial products. Thus, they were able to persuade many of their former customers at the bank to transfer investment accounts to the brokerage firm. The remaining 10% of IFAs in our sample are not former bank employees but they instead joined a larger team of IFAs directly and built up their own customer base, again drawing mostly from former bank customers.

At the time of account opening, IFAs had typically obtained a client mandate to place orders on behalf of the client. We do not have information on which clients fully delegate trading decisions to their IFAs and which only consult their IFAs for guidance and then place trades themselves. The brokerage firm offers several compensation schemes to IFAs. Only for a negligible fraction of IFAs are revenues dependent solely on assets under management. More than 90% of IFAs generate at least a portion of revenues from trades, such as sales commissions. In the case of mutual funds the commission is a function of the upfront load the brokerage firm earns from the fund producer.

Of the customers in our sample, 12.8% consult IFAs registered with the brokerage firm. More than half of these customers are IFAs' former banking clients, with the remaining half (typically also former bank customers) having been acquired over the years, most importantly through existing customers' referrals. We cannot rule out that customers coded as not using an IFA obtain professional advice from outside advisors. This is, however, rather unlikely because such outside advisors do not participate in the fees and commissions paid by the client to the brokerage firm and must therefore charge their services on top of the full brokerage fees and commissions.

Table 1 shows descriptive statistics of the total brokerage sample and of the two sub-samples distinguished by whether sample customers were advised by IFAs or not, after dropping accounts that report age of account owner below 18.[5] As shown in the table, 77.8% of account owners were male, and 47.9% married. Overall, 86.1% were employed (excluding public servants) and 13.2% were self-employed, with the remaining 0.7% being public servants, retirees, housewives or students. Average trading experience as of January 2003 was 9.34 years. Among IFA-assisted customers, men are underrepresented relative to their share in the overall account owner pool, and so are married owners (as indicated by the corresponding t-statistics and p-values in the last two columns of Table 1). Older owners (above 50) are overrepresented, and advised customers have on average more years of experience and larger initial size of accounts.

Table 1 also reports performance figures for the brokerage accounts. As indicated by the t-statistics and associated p-values, raw returns, abnormal returns (see Section 3.3 for definitions), raw return variance and Sharpe ratios are on average significantly lower for IFA-assisted than for self-directed customers.

Table 1
Descriptive statistics for the brokerage sample (IFAs).

	Self-managed accounts sample mean	Accounts run by IFA sample mean	T-test for difference in means	All accounts sample mean	All accounts standard deviation
Dependent variables					
Log monthly returns	0.0101	0.0063	24.70*	0.0097	0.0089
Jensen's alpha	0.0098	0.0061	23.72*	0.0093	0.0091
Alpha – four factor model	0.0093	0.0055	22.31*	0.0088	0.0100
Variance of monthly returns	0.0032	0.0019	28.39*	0.0031	0.0027
Sharpe ratio	0.2229	0.1916	11.73*	0.2189	0.1585
No. of trades/account volume in '000	0.0861	0.0884	0.87	0.0864	0.2609
Monthly turnover rate	0.0405	0.0895	33.38*	0.0468	0.0865
Share of directly held stocks	0.5777	0.2000	58.70*	0.5295	0.3838
Control variables					
Male	0.7925	0.6739	15.37*	0.7774	0.4160
Married	0.4812	0.4636	0.92	0.4790	0.4996
Employed (excluding public servants)	0.8655	0.8334	4.93*	0.8614	0.3455
Self-employed	0.1280	0.1577	5.10*	0.1318	0.3383
Experience	9.3415	11.1535	16.27*	9.5684	6.2182
$18 \leqslant \text{Age} \leqslant 30$	0.0101	0.0415	3.43*	0.0462	0.2100
$30 < \text{Age} \leqslant 40$	0.0098	0.1180	18.35*	0.2409	0.4276
$40 < \text{Age} \leqslant 50$	0.0093	0.2680	8.66*	0.3346	0.4719
$50 < \text{Age} \leqslant 60$	0.0530	0.2287	5.00*	0.1995	0.3997
Age > 60	0.0708	0.3437	28.11*	0.1787	0.3831
Log account volume in 2003	9.1588	10.2823	42.98*	9.3023	1.4917
Observations	25,173	3686		28,321	28,321

The t-test refers to a test of the null hypothesis that the mean of the sample with self-managed accounts equals the mean of the sample with accounts run by an independent financial advisor (IFA).
* The two means are statistically different from each other at the 1% level.

All reported return figures are monthly and *net* of any transactions costs and provisions charged by the brokerage on its own account or on behalf of the IFA.[6] Transaction costs and provisions are divided between the brokerage and IFA, with the bank typically earning roughly 30 basis points for transaction fees, account maintenance, and front loads, leaving about 170 basis points for the IFA. There is a minority of advisors who follow a different business model: instead of earning front loads, they forward those to their clients and earn an extra fee as a percentage of account volume. As this

[5] These are typically accounts run by parents on behalf of their children. Specifically, 796 investors in our original sample were younger than 18 on September 5, 2006, and the youngest investor in that sample was just under 6 years old. Tax advantages for parents arise because during the observation period there was a per person threshold level of interest or dividend income above which capital income tax needed to be paid. We have also run the regressions including investors under 18, but our results were hardly affected in terms of sign, significance, and even size of estimates, except for small changes in the estimates for age categories.

[6] Although we only observe net returns in our data and therefore cannot directly measure transaction cost, we know from the data provider that the brokerage and the IFA combined earn typically 100–200 basis points on clients with account volume greater than 50,000 Euros. For smaller accounts, this number is typically in the neighborhood of 200 basis points, although it can be as high as 300–500 basis points, due to front loads (principally observable in the data set) and kick-backs (not observable) from mutual funds.

extra fee is not run through the bank, it is not observed by us and it is not taken into account in computing returns and other measures of performance net of costs. Since we obtain negative effects of IFAs on account performance in econometric estimations below, the resulting understatement of costs in these cases, if anything, strengthens our findings on the role of IFAs.

The monthly position statements list for each item the type of security (e.g. stocks, bonds, mutual funds, etc.), the number of securities, and the market value per security at month end. At the start of the sample period (January 2003), average annual account volume was 10,963 Euro. We compute monthly turnover by dividing the combined transaction value of all purchase transactions for a given month by the average of beginning-of-month and end-of-month account volume. Average monthly turnover is 4.7% in our sample, but about double of this for advised customers.

3.2. Data on bank financial advisors

In order to compare our findings across different advisory models, we also consider a second data set of investment accounts, this time from a large German commercial bank that offers optional advice to its customers through its bank employees assigned to this task. Unlike the online brokerage that likely attracts a selected sample of the German population interested in trading, the bank has a wide network of branches that reach a broad cross section of the German population. This data set consists of 10,434 randomly selected customers observed over a 34-month period, from January 2003 to October 2005. For 4447 of those, we have detailed information on whether particular trades were executed following consultation with a bank financial advisor (a bank employee) or without such consultation. Accordingly, we construct a dummy variable for bank financial advisor use (BFA) that takes the value of 1 if the customer has consulted with a BFA at least once during the observation period and 0 if the customer never consulted a BFA during the period. For comparability's sake, we match these accounts to the same regions as in the brokerage data set and use the same regional variables and (virtually) the same set of account owner characteristics as for the brokerage sample.

Table 2 presents descriptive statistics for the bank sample. Again we distinguish between self-managed accounts and accounts that are at least partly managed by an advisor. Male account owners are in a minority in this sample (46.3%) and they are underrepresented (again as indicated by the corresponding t-statistics in the table) among those customers who consulted a bank financial advisor before executing some trade(s). As expected, retirees and housewives are much more strongly represented in the bank sample than in the brokerage sample. They comprise just fewer than 30% of the observations and they are overrepresented among advised customers. The majority of account owners are at least 50 years old, and those above 60 are overrepresented among advised customers. The average account volume at the start of 2003 was slightly higher in this sample, namely 12,694 Euro. The average monthly turnover rate was 5.8%, somewhat higher than in the brokerage sample, and smaller for advised customers than for those who never consulted a BFA.

Finally, Table 2 reports performance figures for the bank accounts, showing that raw returns and Sharpe ratios are on average significantly lower for BFA-assisted customers than for self-directed customers. Given the different composition and advisory models of the two samples, it will be interesting to see if findings on the contribution of financial advice to account performance persist (or differ) across samples.

Table 2
Descriptive statistics for the bank sample (BFAs).

	Self-managed accounts sample mean	Accounts run by BFAs sample mean	T-test for difference in means	All accounts sample mean	All accounts standard deviation
Dependent variables					
Log monthly returns	0.0076	0.0040	11.59	0.0054	0.0101
Variance of monthly returns	0.0045	0.0046	0.43	0.0046	0.0130
Sharpe ratio	0.4252	0.2662	12.23	0.3253	0.4020
Monthly turnover rate	0.0680	0.0520	8.34	0.0579	0.1103
Share of directly held stocks	0.2975	0.1188	20.07	0.1853	0.3009
Control variables					
Male	0.5102	0.4350	4.86	0.4630	0.4986
Employed (excluding public servants)	0.4413	0.3501	6.06	0.3840	0.4864
Executive employee	0.0284	0.0257	0.54	0.0267	0.1613
Housewife	0.0665	0.1034	4.22	0.0897	0.2858
Retired	0.1577	0.2205	5.05	0.1972	0.3979
$18 \leqslant$ Age $\leqslant 30$	0.1203	0.0920	2.92	0.1020	0.3033
$30 <$ Age $\leqslant 40$	0.1644	0.0941	6.88	0.1203	0.3253
$40 <$ Age $\leqslant 50$	0.1922	0.1385	4.80	0.1585	0.3652
$50 <$ Age $\leqslant 60$	0.1753	0.1736	0.22	0.1742	0.3793
Age > 60	0.3476	0.5016	10.05	0.4443	0.4969
Log account volume in 2003	9.0002	9.7146	10.63	9.4489	2.1695
Observations	1648	2792		4440	4440

The t-test refers to a test of the null hypothesis that the mean of the sample with self-managed accounts equals the mean of the sample with accounts run by a bank financial advisor (BFA).

3.3. Measuring account performance

In this paper we are interested in the effect of financial advice on portfolio performance and portfolio risk and in particular on abnormal returns. In order to compute monthly portfolio returns, we assume as in Dietz (1968) that all transactions occur in the middle of a given month:

$$R = \frac{VE - VB - CF}{VB + 0.5 \times CF} \tag{1}$$

where VE is the value of the portfolio at end of month including earned dividends and coupons, VB the market value of the portfolio at beginning of month, and CF is the net cash flow for month t from purchases (enter positively) and sales of securities(enter negatively) at transaction prices

Monthly returns from (1) are winsorized by treating returns that fall into the first or the 100th percentile as missing values.[7] We construct log returns and use them and the standard regression model in (2) to estimate abnormal (log) returns for each portfolio based on CAPM.

$$r_{p,t} - r_{f,t} = \alpha_p + \beta_p(r_{M,t} - r_{f,t}) + \varepsilon_{p,t} \tag{2}$$

where α_p is the estimated abnormal return (Jensen's Alpha) for portfolio p, β_p is estimated market beta for portfolio p, $r_{M,t}$ is log return

[7] Extreme monthly return observations were treated as missing (and not set to the upper/lower boundary that would be customary for winsorization) because (a) they most likely represent erroneous data, and (b) we do not lose customers but just single months. As a consequence, some customers have only 33 instead of 34 monthly return observations.

of the Euro-denominated MSCI-World Index in month t, $r_{f,t}$ is log return on the 1-month Euribor, $\varepsilon_{p,t}$ is the error term of regression for portfolio p.

In order to test robustness of our results to the way abnormal returns are computed, we also present results for an alternative estimate of excess returns based on a four-factor model proposed by Carhart (1997) to measure portfolio performance. The model is specified as follows:

$$r_{i,t} = \alpha_i + \beta_{1i}R_{m,t} + \beta_{2i}SMB_t + \beta_{3i}HML_t + \beta_{4i}MOM_t + \varepsilon_{it} \quad (3)$$

where the intercept α_i measures risk-adjusted monthly abnormal portfolio returns, $r_{i,t}$ denotes monthly excess returns on portfolio i relative to the risk-free rate which is captured by monthly returns on the JP Morgan 3 Month Euro Cash Index, $R_{m,t}$ denotes the excess return on the market portfolio which we approximate by the comprehensive German CDAX Performance Index, SMB_t, HML_t, and MOM_t correspond to monthly returns on size, value premium and momentum portfolios. The size portfolio return (*SMB*) is approximated by the difference in monthly returns on the small cap SDAX index and the large cap DAX 30 index. The book-to-market portfolio return (*HML*) is approximated by the return difference between the MSCI Germany Value Index and the MSCI Germany Growth Index. Finally, the momentum portfolio return (*MOM*) is the difference in monthly returns between a group of stocks with recent above-average returns and another group of stocks with recent below-average returns. The group with above-average returns is defined as the top 30% of stocks from the CDAX index over the past 11 months and the below-average group contains the lowest 30% of stocks from the same index over the same time period.

4. Performance record of financial advisors

For many brokerage clients, a natural first step towards deciding whether to use an IFA or not would be to compare the historical performance of accounts run with IFA involvement and those run without it. Similarly, bank customers would like to know if those who have contacted bank financial advisors have done better on average than those who did not. Even in the absence of official records (indeed neither the broker or the bank compute or print portfolio performance records for their clients), prospective clients may still be influenced by the experiences of existing clients through word of mouth.

Fig. 1 plots histograms of average monthly log returns over our observation period for brokerage accounts that were self-managed and for those run with IFA input. Self-managed accounts exhibit a more symmetric distribution, while advised accounts show higher mass at the lower end of returns. Table 1 shows monthly logarithmic returns. The sample mean log monthly return on IFA accounts over this period is actually lower than that of self-managed accounts: 0.63% versus 1.01%. This corresponds to a difference in annual rates of return of 5% points (7.9% for advised customers versus 12.9% for those who invested alone). Even though the brokerage house itself neither collected nor published such statistics, the difference seems rather hard to miss. Table 1 confirms that IFA accounts are also characterized by lower abnormal returns than self-managed accounts, regardless of whether we use a single-factor model based on the MSCI-World Index or whether we use a four-factor model based on German stock data.

These lower returns offered by IFAs are combined with lower average variance of portfolio returns raising the possibility that they simply reflect an efficient risk-return tradeoff. Strikingly, however, the sample average of the Sharpe ratio on advised accounts is also lower than that on self-run brokerage accounts, suggesting that advisees 'paid' on average a higher cost (in terms of returns) to attain lower risk than what was available to self-managed accounts. Fig. 2 shows that the distribution of total portfolio variance under IFAs is 'squeezed' towards values closer to zero compared to what is produced by individuals managing their accounts, but Fig. 3 shows a much greater heterogeneity in Sharpe ratios among advised customers than among the rest.

Comparison of IFA and non-IFA accounts also shows a rather small difference in frequency of trades across the two types of accounts, but a much more pronounced one when average portfolio turnover (which is sensitive to the size of purchases) is considered: the average turnover rate is more than double for IFA accounts. Looking at Figs. 4 and 5, both measures tend to be clustered closer to zero for self-managed accounts. In other words, IFAs get commission based on the volume of purchases and tend to exhibit greater purchases than individual clients on average. IFA accounts

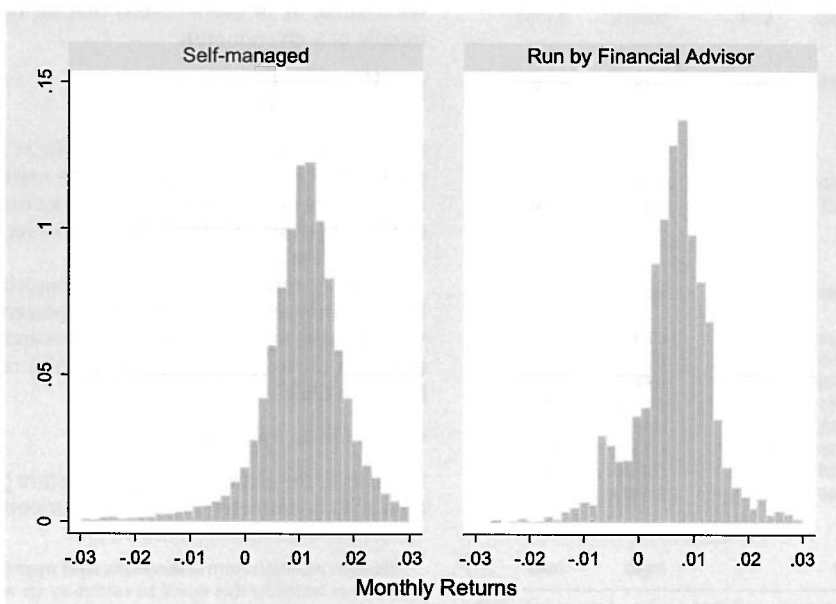

Fig. 1. The distributions of log monthly returns.

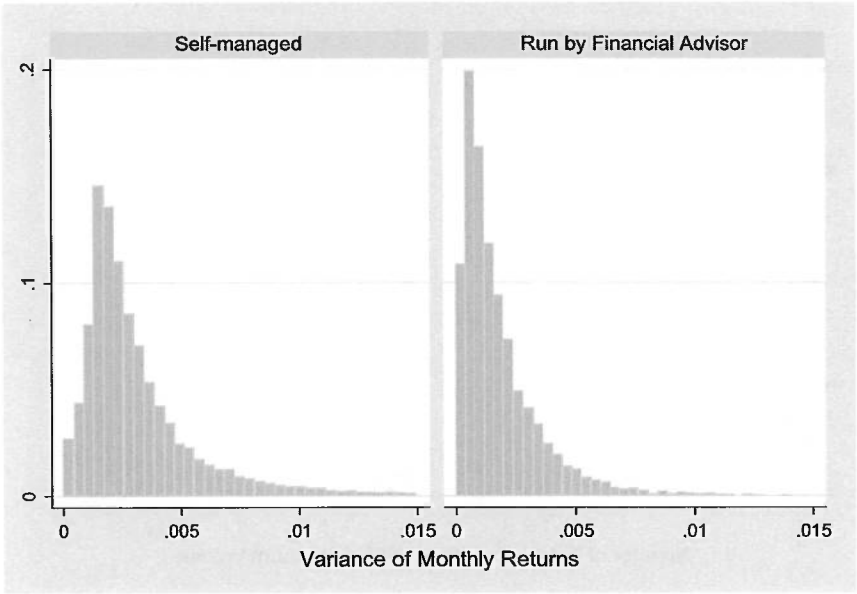

Fig. 2. The distributions of the variance of monthly returns.

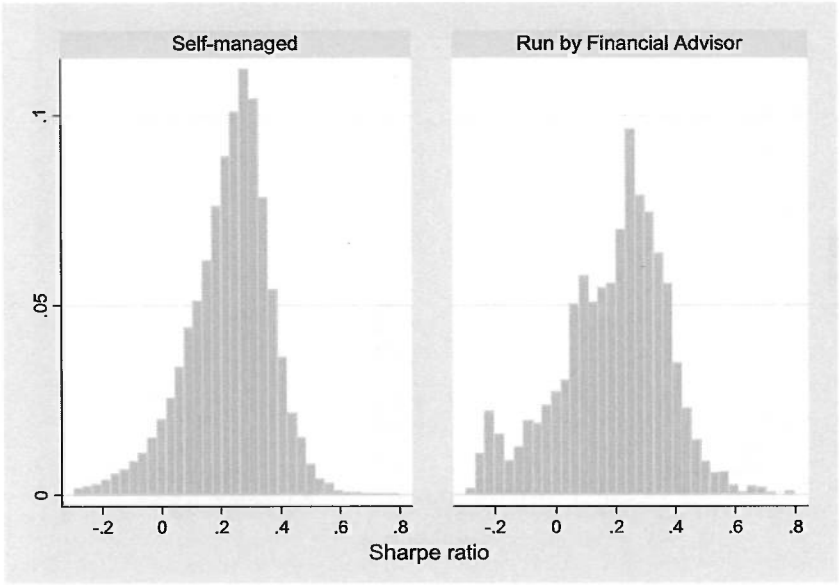

Fig. 3. The distribution of the Sharpe ratio.

tend also to be larger, and are therefore associated with larger positions and trades.

Finally, IFA accounts tend to exhibit far greater diversification than those run by individuals alone. The average share of directly held stocks among self-managed accounts is just under 60%, while that for IFA accounts is about 20%. This seems consistent with incentives to sell mutual funds that IFAs have.

Table 2 presents a similar comparison for bank customers who have used the advice of bank employees prior to making trades versus those who have not. Accounts of customers who have resorted to bank advisors exhibit on average lower returns, comparable variance, much lower Sharpe ratios, and smaller shares of directly held stocks than those who did not approach the benchmark. Unlike what we found for brokerage clients, turnover rates of those who made use of bank advice were on average lower than of those who did not.

All in all, performance records of IFAs and BFAs during this sample period do not appear favorable towards advised accounts, especially in terms of the risk-return tradeoff offered. The deeper question is, of course, whether these differences are due to financial advisors themselves or to the customers they tend to attract. It is to this household finance question that we now turn, focusing first on IFAs and then on BFAs.

5. Who has a financial advisor?

We first consider which client characteristics of the brokerage firm or bank contribute to the client's account being run with advisor input. A priori, it may be that advisors tend to be matched with younger, less experienced and less wealthy investors, who

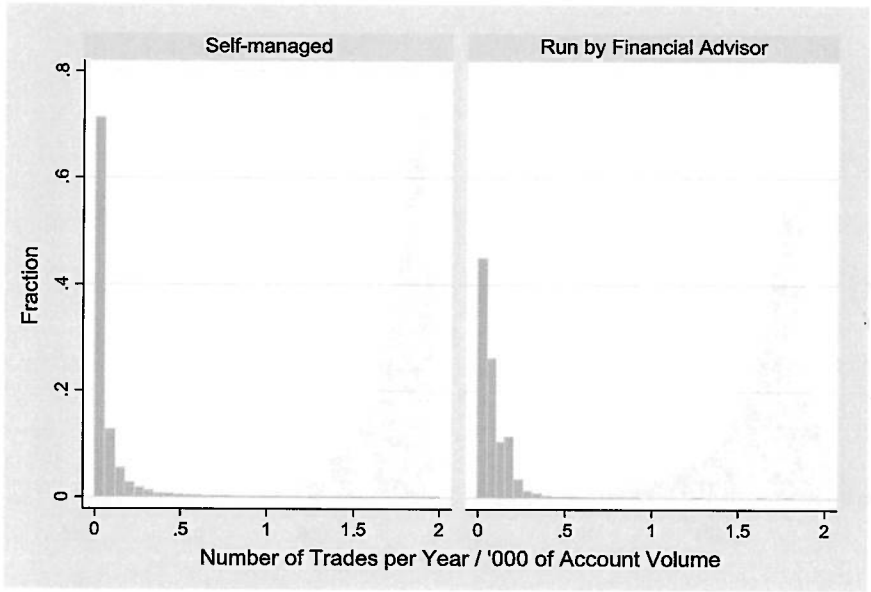

Fig. 4. The distribution of number of trades (per '000 account volume).

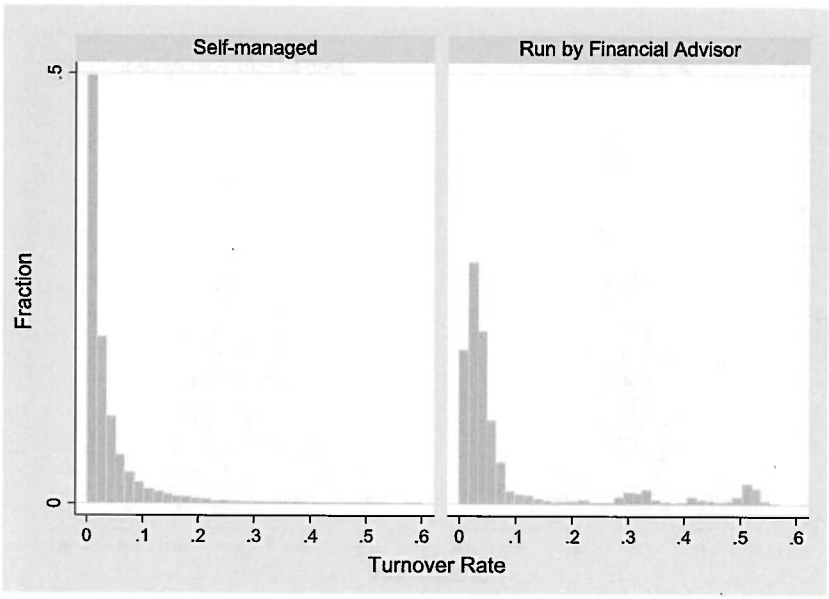

Fig. 5. The distribution of the monthly turnover rate.

need them most; or that they are matched with older, more experienced and wealthier investors who can pay them most.

Table 3 reports linear probability regressions of whether the client makes use of an IFA or a BFA, respectively.[8] We control for time-invariant characteristics (such as availability and cost of financial advice and characteristics of investor pools) in the region (columns 1 and 3) and zip code (columns 2 and 4).[9] We see that, given other characteristics, males are less likely to use an advisor, consistent with the view that males tend to have more (over)confidence. Older clients (over 50) have a significantly greater probability than investors between 18 and 30 of using an advisor, by about 10% points in both samples. Wealthier brokerage clients, as proxied by the beginning-of-period account size to minimize endogeneity problems, are significantly more likely to use IFA or BFA.

Married clients are less likely to use an IFA, controlling for other factors, probably because spouses can be used as sounding boards. An extra year of self-reported experience with the relevant financial products increases the probability of using an IFA. We do not have information on the marital status and trading experience of bank customers, but their professional status is statistically insignificant.

Overall our regressions show that advisors are more likely to be matched with wealthier (as measured by account volume), older,

[8] Results from probit models (omitting zip-code dummies) deliver very similar results to the linear probability models, and are available on request.

[9] The German Zip Code (*Postleitzahlen*) is a five digit number consisting of the wider area that is placed on the thousandth position and the postal district (the unit, tenth and hundredth positions). Regressions in columns 1, 3, 4 and 6 include dummies for broader regions (Dresden, Berlin, Hamburg, Hannover, Dusseldorf, Bonn, Frankfurt, Stuttgart, Munich and Nuremberg), while regressions in columns 2 and 5 include dummies at the zip code level. There are 5652 zip code dummies for the brokerage sample and 646 for the bank sample.

Table 3
The determinants of having the account run by an IFA or a BFA.

	Brokerage sample (IFAs)		Bank sample (BFAs)	
	(1)	(2)	(3)	(4)
Male	−0.062***	−0.061***	−0.049***	−0.038**
	(12.06)	(10.92)	(3.14)	(2.15)
Employee	0.057**	0.061**	−0.054***	−0.039*
	(2.44)	(2.52)	(2.93)	(1.91)
30 < Age ⩽ 40	−0.031***	−0.025**	−0.050	−0.060
	(3.32)	(2.40)	(1.44)	(1.49)
40 < Age ⩽ 50	−0.004	0.004	−0.013	−0.021
	(0.36)	(0.35)	(0.38)	(0.57)
50 < Age ⩽ 60	0.023**	0.021*	0.053*	0.042
	(2.20)	(1.81)	(1.67)	(1.16)
Age > 60	0.088***	0.088***	0.112***	0.089***
	(7.53)	(6.71)	(3.87)	(2.73)
Log account volume	0.045***	0.044***	0.027***	0.034***
	(22.07)	(20.19)	(7.51)	(7.92)
Self-employed	0.060**	0.064**		
	(2.48)	(2.55)		
Experience/100	0.159***	0.148***		
	(3.45)	(3.03)		
Married	−0.023***	−0.025***		
	(5.61)	(5.10)		
Executive			−0.003	0.032
			(0.06)	(0.59)
Housewife			0.002	0.016
			(0.06)	(0.49)
Retired			−0.025	−0.009
			(1.11)	(0.34)
Constant	−0.358***	−0.316***	0.366***	0.303***
	(12.58)	(10.34)	(7.68)	(6.58)
Observations	28,321	28,321	4440	4440
R-squared	0.09	0.37	0.05	0.23
Zip code dummies	No	Yes	No	Yes

The table reports estimates from a linear probability model of having an Independent Financial Advisor or a bank financial advisor. Log account volume is measured in January 2003. All regressions include regional dummies (absorbed by zip code dummies where present). Asymptotic standard errors corrected for clustering at the zip code level are reported in parentheses.
* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

more experienced, single, and female investors. Such investors have better reasons to want to delegate to advisors, such as high opportunity cost or low inclination to spend time managing investments, as well as sizeable wealth. The results are remarkably consistent across the two samples, and robust to inclusion of zip code dummies that control for unobserved factors at the local level. Since IFAs and BFAs earn more on wealthy clients with high opportunity costs of time, they seem to go for the big players who have a lot to invest, rather than for the younger, smaller, inexperienced investors who have a lot to learn.

6. Independent financial advisors and portfolio performance

We now turn to how IFA use affects account performance once we control for client characteristics. An important estimation issue is omitted variable bias: unobserved factors may simultaneously affect the probability of using an advisor as well as account performance. For instance, our data do not report willingness to undertake financial risk: more risk averse clients may be inclined to consult an advisor and to invest in a safer portfolio, thus influencing account returns and variance. Other factors could also influence both advisor use and account performance: financial literacy and sophistication; attitudes developed in formative years, e.g. through parental influence or observation of others in the parental social circle; social attitudes, such as trust in others, that have been shown to influence portfolio composition (e.g. participation in stockholding) and delegation to a financial advisor. In order to attenuate this problem, we control for as many possible factors that are observed in our data set as well as for regional dummies and a finer classification of zip code dummies.

A second issue is the potential endogeneity of the choice of consulting a financial advisor. Investors with low performing portfolios may be induced to use a financial advisor by the media or specific campaigns that advisor-assisted portfolios perform better. A negative correlation between advisor consultation and, say, returns, might therefore be driven by the effectiveness of these campaigns, rather than by a negative role of financial advisors per se. In order to handle this possibility, we present (in Appendix A) instrumental variable estimates using as instrument the local GDP share of financial services. Results are consistent with our OLS findings below.

6.1. IFA effect on portfolio returns

Table 4 presents OLS estimates regarding the influence of IFA use on raw net returns, and on abnormal net returns, constructed on the basis of a single-factor and of a four-factor model in the spirit of Carhart (1997). Columns 1 and 2 report estimated effects on average portfolio returns, controlling for investor characteristics and regional dummies. Model (2) adds zip code dummies as controls for time-invariant local characteristics. IFA effects are almost identical in both models: negative and statistically significant at the 1% level, implying that IFA use reduces monthly log returns by roughly 0.4% points. Thus, the lower returns for advised accounts in descriptive statistics survive controls for personal and regional characteristics.

Even if IFAs reduce raw returns, they might still be found to create value by increasing risk adjusted returns. Columns 3 and 4 in Table 4 report OLS regressions for alphas from a model with the return on the MSCI world index as the single factor (denoted Jensen's alpha). The IFA contribution is again negative and of similar magnitude as for raw returns, once characteristics of the account owner and region are taken into account. In columns 5 and 6, we examine robustness with respect to using the four-factor model for German stock markets outlined above. The strongly statistically significant negative effect of IFA use is observed regardless of whether we use a single or a four-factor model, and its size is remarkably similar with the other models and with the descriptive statistics from Table 1.

Across all models, male gender is found to detract from account returns, consistent with the literature on overconfidence. Years of experience tend to contribute to higher total return, albeit by a small estimated amount. This is consistent with recent studies indicating that the magnitude of investment mistakes decreases with sophistication and experience.[10]

Findings in this section imply that involvement of IFAs with brokerage accounts tends to reduce both raw and abnormal returns, even after investor and area characteristics are taken into account. Our results are consistent with the cost of financial advice exceeding, on average, any benefits from informational contributions. Importantly, this does not necessarily imply that (some) IFAs engage in misselling or that all IFAs give uniformly bad advice.

[10] For example, Feng and Seasholes (2005) ask whether investor sophistication and trading experience eliminate behavioral biases, such as the disposition effect, using data from the PR of China. They proxy sophistication mainly by the *number of trading rights* (indicating the number of methods to trade) and an indicator of *initial portfolio diversification*, both at the start of the observation period. Experience is proxied by the number of positions taken by investor *i* up until date *t*, a time-varying covariate. They conclude that sophistication and experience eliminate the reluctance to realize losses, but only reduce the propensity to realize gains by 37%. See also Grinblatt and Keloharju (2001), Feng and Seasholes (2005), and Lusardi and Mitchell (2007).

Table 4
The determinants of portfolio returns in the brokerage sample.

	Log returns		Jensen's alpha		Alpha 4 factor model	
	(1)	(2)	(3)	(4)	(5)	(6)
Financial advisor (IFA)	−0.004***	−0.004***	−0.004***	−0.004***	−0.004***	−0.004***
	(26.45)	(18.33)	(26.88)	(18.22)	(27.03)	(17.11)
Male	−0.001***	−0.000***	−0.000***	−0.000***	−0.001***	−0.001***
	(4.34)	(3.14)	(3.95)	(2.99)	(5.37)	(4.17)
Married	0.000	0.000	0.000	0.000	0.000**	0.000
	(0.79)	(0.22)	(1.16)	(0.43)	(2.12)	(1.49)
Employee	−0.001	−0.001	−0.001	−0.001	−0.001*	−0.001*
	(1.57)	(1.43)	(1.47)	(1.39)	(1.95)	(1.72)
Self-employed	−0.001*	−0.001*	−0.001*	−0.001*	−0.001**	−0.002**
	(1.91)	(1.77)	(1.86)	(1.74)	(2.35)	(2.11)
Experience/100	0.002**	0.001	0.001	0.000	0.001	0.001
	(2.28)	(0.98)	(1.58)	(0.43)	(1.31)	(0.53)
30 < Age ⩽ 40	0.000*	0.001*	0.000*	0.001*	0.000	0.000
	(1.84)	(1.70)	(1.86)	(1.71)	(0.89)	(1.07)
40 < Age ⩽ 50	−0.000	−0.000	−0.000	−0.000	−0.000	−0.000
	(0.32)	(0.37)	(0.46)	(0.43)	(1.36)	(0.97)
50 < Age ⩽ 60	0.000	0.000	0.000	0.000	−0.000	−0.000
	(0.15)	(0.43)	(0.18)	(0.48)	(1.11)	(0.33)
Age > 60	−0.001*	−0.000	−0.000	−0.000	−0.001***	−0.001
	(1.80)	(0.95)	(1.64)	(0.79)	(2.63)	(1.58)
Log account volume	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
	(6.92)	(4.81)	(6.68)	(4.62)	(7.51)	(5.24)
Constant	0.008***	0.008***	0.008***	0.008***	0.007***	0.008***
	(11.92)	(9.78)	(11.24)	(9.36)	(9.48)	(7.90)
Observations	28,321	28,321	28,321	28,321	28,321	28,321
R-squared	0.03	0.23	0.02	0.22	0.02	0.22
Zip code dummies	No	Yes	No	Yes	No	Yes

Log account volume is measured in January 2003. All regressions include regional dummies (absorbed by zip code dummies where present). Asymptotic *t*-statistics corrected for clustering at the zip code level are reported in parentheses.
* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

6.2. IFA effect on variance of returns and Sharpe ratio

The finding that IFAs tend to lower both raw and abnormal account returns, given investor characteristics, need not be negative, if IFAs ensure that clients are exposed to smaller portfolio risk. Descriptive statistics above seem to be pointing in this direction. We therefore turn next to the effect of IFA involvement on variance of monthly portfolio returns and on the risk-return tradeoff as captured by the Sharpe ratio. Table 5 reports our findings.

Column 1 reports OLS results for a model with regional dummies, whereas column 2 reports results when zip-code dummies are included. In both models, IFAs reduce portfolio risk in line with descriptive results. Being male, inexperienced, single, self-employed, and with a smaller account all contribute significantly to higher total portfolio risk. Results on control variables are intuitive. For example, larger accounts should allow more diversification, and we indeed find below that they tend to have smaller portfolio shares in directly held stocks.

Set against the negative effects of IFAs on account returns, their moderating effect on variance raises the question of whether IFAs help achieve an efficient risk-return tradeoff. We present two regressions (columns 3 and 4), one with regional and the other with zip code dummies. Both show a statistically significant negative effect of IFAs on Sharpe ratios. Male gender contributes to inferior risk-return tradeoffs, consistent with overconfidence; while more experienced or married investors tend to achieve better tradeoffs. Interestingly, self-employed and older clients are seen to have a tendency to expose themselves to more risk than what is efficient for a given increase in expected return. Finally, wealthier investors tend to achieve better risk-return tradeoffs, presumably by exploiting economies of scale in asset management. We conclude from Table 5 that IFAs tend to reduce portfolio risk but do not compensate sufficiently for lower returns: IFA use decreases ex post portfolio efficiency.

6.3. IFA effect on trading, turnover, and diversification

What type of behavior underlies our results on returns and risk? The fact that IFAs earn commissions mainly when the account owner purchases mutual funds creates an incentive for them to encourage fund purchases. The first two columns of Table 6 examine the effect of IFA on the number of purchases per month scaled by account volume. These exclude account transactions from corporate actions, periodic saving plan investments and portfolio transfers, so as to be more directly linked to the IFA incentives to sell specific financial instruments.

Our results imply a negative effect of IFAs on the standardized number of purchases. Purchases result in transactions costs and could contribute to lower net returns, but it appears that the negative effect of IFAs on net returns reported above does not result simply from an increased frequency of purchases. The regression does confirm the positive role of male gender found in other studies (see above). Financial experience is estimated to reduce the number of purchases, consistent with Dorn and Huberman (2005) finding that respondents with longer investment experience trade less, but the effect is not statistically significant. Account holders between 40 and 60 are significantly more likely to engage in purchases than other age groups. Subject to the provision interpreting age effects, this finding is consistent with them being in the asset accumulation phase, prior to entering retirement.

Although we do not find a simple channel through frequency of trading, this does not mean that IFAs do not respond to incentives offered by commissions. It is useful to recall that commissions are

Table 5
The determinants of portfolio return variance and Sharpe ratios in the brokerage sample.

	Variance of monthly returns		Sharpe ratio	
	(1)	(2)	(3)	(4)
Financial advisor (IFAs)	−0.001***	−0.001***	−0.056***	−0.052***
	(14.74)	(9.95)	(13.87)	(10.92)
Male	0.001***	0.001***	−0.022***	−0.021***
	(15.82)	(13.11)	(10.31)	(7.85)
Married	−0.000***	−0.000***	0.006***	0.006***
	(8.01)	(6.27)	(3.26)	(2.62)
Employee	0.000*	0.000	−0.021**	−0.017
	(1.77)	(0.24)	(2.10)	(1.39)
Self-employed	0.001***	0.001***	−0.033***	−0.029**
	(5.18)	(2.93)	(3.22)	(2.21)
Experience/100	−0.000	−0.000	0.056***	0.043**
	(0.50)	(0.47)	(3.74)	(2.31)
30 < Age ⩽ 40	0.000*	0.000	0.001	0.002
	(1.77)	(1.19)	(0.17)	(0.42)
40 < Age ⩽ 50	0.000***	0.000***	−0.012***	−0.013**
	(5.46)	(3.99)	(2.59)	(2.33)
50 < Age ⩽ 60	0.000***	0.000***	−0.014***	−0.013**
	(5.84)	(4.21)	(2.77)	(2.19)
Age > 60	0.001***	0.000***	−0.018***	−0.015**
	(6.22)	(3.99)	(3.58)	(2.45)
Log account volume	−0.001***	−0.001***	0.023***	0.021***
	(39.58)	(31.94)	(26.96)	(20.47)
Constant	0.007***	0.008***	0.066***	0.064***
	(38.35)	(32.36)	(5.22)	(4.12)
Observations	28,321	28,321	28,321	28,321
R-squared	0.12	0.31	0.05	0.25
Zip code dummies	No	Yes	No	Yes

Log account volume is measured in January 2003. All regressions include regional dummies (absorbed by zip code dummies where present). Asymptotic *t*-statistics corrected for clustering at the zip code level are reported in parentheses.
* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

linked to the size, and not merely to the frequency of purchases. The third and fourth columns of Table 6 show a positive and strongly statistically significant effect of IFAs on average account turnover. This could be part of the explanation for why IFAs contribute negatively to portfolio returns.[11] Again, males are more likely to have larger account turnover and more experienced investors are less likely to turn over their portfolio frequently. Younger investors, between 30 and 60 years of age, are estimated to have higher purchase turnovers, as they actively expand their portfolios.

A different perspective on the role of IFAs applies to encouraging diversification. Columns 5 and 6 of Table 6 report a negative IFA effect on the average share of directly held stocks in the account, even after characteristics of account holders and areas are controlled for.[12] This finding is consistent both with the descriptive statistics at the start of the paper and the incentive of IFAs to sell mutual funds. It is also one channel through which the reduction in portfolio variance that we found in Table 5 is likely to be accomplished by IFAs.

Controlling for other factors, males tend to put larger shares of their account in directly held stocks, suggesting overconfidence in portfolio behavior, in addition to the gender effects on frequency of trading and on the volume of purchases.[13] Interestingly, experience tends to lower the share of directly held stocks, dampening overconfidence rather than encouraging account owners to manage direct investments in stocks. The conclusion from the regression analysis is that IFAs seem to boost the volume of purchases, while reducing the fraction of the account invested in directly held stocks.

7. Bank financial advisors and portfolio performance

Given the rather striking nature of the estimated contribution of IFAs to portfolio performance, the question arises as to whether our results are specific to brokerage accounts, e.g. because of selectivity into these types of accounts, or because financial advisors are independent and not accountable to the financial institution. For this reason, we consider a second data set of investment accounts, this time from a large German commercial bank.

Our discussions with the brokerage and the commercial bank suggest that there are important similarities and differences between incentives facing IFAs and BFAs. For example, upfront loads for mutual funds, a key component of any incentive scheme, are typically fixed by the mutual fund producer and therefore identical for all sales organizations. Although the bank does not funnel all commissions through to its BFAs, it gives powerful non-monetary incentives to its sales force through its sales control system.[14] On the other hand, IFAs are not subject to the constraints imposed by banks on BFAs. In fact, many banks not only narrow down the menu of financial products offered to investors, but also provide extra incentives for their agents to advise clients to purchase funds or structured products produced by the bank itself or by one of its subsidiaries.[15] We expect the negative association between BFA

[11] Higher turnover might be motivated simply by commissions but also by an incentive of IFAs to justify their fees by rebalancing client portfolios (see e.g. Lakonishok et al., 1992).

[12] Since the share of single stocks is bound between zero and one, we also run probit regressions. Results deliver very similar results to the OLS estimates, and are available on request.

[13] Being married tends to have the opposite effect, presumably because more people are at risk and maybe vocal in encouraging diversification. Employees and self-employed account owners tend to invest more in directly held stocks, probably because of their increased social interactions.

[14] Another similarity refers to legal fines for any detected misselling. Since they are a function of the loss to the client they should be identical across IFAs and banks.

[15] Yoong and Hung (2009) extend Ottaviani and Inderst (2009) to address this kind of self-dealing.

Table 6
The determinants of trading, turnover and diversification in the brokerage sample.

	Number of trades		Turnover rate		Share of single stocks	
	(1)	(2)	(3)	(4)	(5)	(6)
Financial advisor (IFA)	−0.008***	−0.009**	0.062***	0.053***	−0.353***	−0.341***
	(2.59)	(2.14)	(16.77)	(15.21)	(47.19)	(37.72)
Male	0.035***	0.036***	0.018***	0.017***	0.077***	0.079***
	(16.04)	(12.32)	(16.10)	(13.15)	(14.71)	(12.37)
Married	0.001	−0.001	0.001	−0.000	−0.027***	−0.029***
	(0.32)	(0.19)	(1.37)	(0.14)	(6.03)	(5.03)
Employee	−0.010	−0.015	−0.001	−0.001	0.082***	0.068**
	(0.80)	(0.89)	(0.19)	(0.26)	(2.94)	(1.99)
Self-employed	−0.006	−0.012	−0.004	−0.005	0.128***	0.108***
	(0.46)	(0.71)	(0.99)	(0.91)	(4.47)	(3.10)
Experience/100	−0.020	−0.003	−0.073***	−0.054***	−0.571***	−0.556***
	(1.07)	(0.12)	(8.58)	(5.42)	(15.22)	(11.91)
30 < Age ⩽ 40	0.005	0.004	0.004**	0.003	0.000	0.001
	(1.39)	(0.80)	(2.05)	(1.17)	(0.03)	(0.04)
40 < Age ⩽ 50	0.015***	0.016***	0.010***	0.009***	0.028**	0.026*
	(4.02)	(2.95)	(4.29)	(3.44)	(2.50)	(1.88)
50 < Age ⩽ 60	0.024***	0.026***	0.016***	0.014***	0.061***	0.064***
	(5.35)	(4.28)	(6.53)	(4.78)	(5.06)	(4.33)
Age > 60	0.020***	0.021***	0.011***	0.011***	0.077***	0.072***
	(4.11)	(3.17)	(4.28)	(3.50)	(6.27)	(4.74)
Log account volume	0.015***	0.016***	−0.009***	−0.007***	−0.027***	−0.030***
	(13.23)	(10.75)	(15.95)	(12.03)	(17.05)	(14.69)
Constant	−0.097***	−0.093***	0.101***	0.089***	0.689***	0.735***
	(6.21)	(4.57)	(16.08)	(12.43)	(21.07)	(18.62)
Observations	28,303	28,303	28,321	28,321	28,321	28,321
R-squared	0.02	0.21	0.07	0.32	0.14	0.32
Zip code dummies	No	Yes	No	Yes	No	Yes

Number of trades is expressed as a fraction of account volume in '000. Log account volume is measured in January 2003. All regressions include regional dummies (absorbed by zip code dummies where present). Asymptotic *t*-statistics corrected for clustering at the zip code level are reported in parentheses.
* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

Table 7
The determinants of portfolio returns, variance and Sharpe ratio in the bank sample.

	Log monthly returns		Variance of monthly returns		Sharpe ratio	
	(1)	(2)	(3)	(4)	(5)	(6)
Financial advisor (BFA)	−0.003***	−0.003***	0.001***	0.001*	−0.180***	−0.178***
	(9.20)	(8.07)	(2.80)	(1.92)	(12.20)	(10.20)
Male	0.001**	0.001*	0.001***	0.001***	−0.031**	−0.033**
	(2.18)	(1.75)	(3.05)	(2.63)	(2.37)	(2.13)
Employee	0.001***	0.001*	0.001	0.001	−0.008	−0.005
	(2.59)	(1.88)	(1.49)	(0.92)	(0.47)	(0.25)
Executive	0.001	0.002	0.002	0.002	−0.013	−0.030
	(1.37)	(1.57)	(1.46)	(1.33)	(0.31)	(0.65)
Housewife	0.001	0.001*	0.000	0.000	0.008	0.020
	(1.58)	(1.70)	(0.19)	(0.14)	(0.34)	(0.72)
Retired	−0.000	0.000	−0.000	−0.000	−0.010	0.001
	(0.27)	(0.48)	(0.22)	(0.58)	(0.53)	(0.04)
30 < Age ⩽ 40	0.001*	0.001	0.000	0.000	0.034	0.029
	(1.86)	(1.49)	(0.09)	(0.14)	(1.21)	(0.86)
40 < Age ⩽ 50	0.000	0.000	0.002*	0.001	0.023	0.010
	(0.41)	(0.32)	(1.87)	(1.46)	(0.91)	(0.33)
50 < Age ⩽ 60	−0.000	−0.001	0.000	0.001	0.023	0.015
	(0.64)	(1.08)	(0.52)	(0.65)	(0.81)	(0.46)
Age > 60	−0.002**	−0.002**	0.001	0.001	0.028	0.012
	(2.58)	(2.33)	(0.88)	(1.21)	(1.10)	(0.40)
Log account volume	0.001***	0.000***	−0.001***	−0.001***	0.023***	0.024***
	(5.44)	(3.81)	(8.04)	(7.15)	(5.08)	(4.85)
Constant	0.001	0.003**	0.013***	0.013***	0.197***	0.210***
	(1.01)	(2.18)	(8.47)	(8.58)	(4.33)	(4.48)
Observations	4440	4440	4440	4440	4440	4440
R-squared	0.06	0.20	0.04	0.19	0.05	0.19
Zip code dummies	No	Yes	No	Yes	No	Yes

Log account volume is measured in January 2003. All regressions include regional dummies (absorbed by zip code dummies where present). Asymptotic *t*-statistics corrected for clustering at the zip code level are reported in parentheses.
* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

Table 8
The determinants of turnover and diversification in the bank sample.

	Turnover rate		Share of single stocks	
	(1)	(2)	(3)	(4)
Financial advisor (BFA)	0.099***	0.121***	−0.158***	−0.148***
	(6.11)	(5.91)	(16.31)	(13.22)
Male	0.072***	0.075***	0.056***	0.055***
	(4.72)	(4.37)	(5.88)	(4.85)
Employee	0.041**	0.019	0.045***	0.037***
	(1.98)	(0.82)	(3.66)	(2.59)
Executive	0.147**	0.137**	0.046	0.054*
	(2.43)	(2.02)	(1.63)	(1.72)
Housewife	0.035	0.029	0.010	0.004
	(1.07)	(0.76)	(0.62)	(0.19)
Retired	0.038	0.023	−0.016	−0.019
	(1.54)	(0.84)	(1.16)	(1.16)
30 < Age ⩽ 40	0.011	0.046	0.072***	0.079***
	(0.38)	(1.32)	(3.69)	(3.52)
40 < Age ⩽ 50	0.016	0.038	0.088***	0.099***
	(0.56)	(1.19)	(4.69)	(4.45)
50 < Age ⩽ 60	0.051*	0.069**	0.053***	0.061***
	(1.87)	(2.14)	(3.04)	(3.02)
Age > 60	−0.012	0.016	0.014	0.029
	(0.47)	(0.55)	(0.85)	(1.58)
Log account volume	0.065***	0.062***	−0.006***	−0.008***
	(14.85)	(12.42)	(2.70)	(2.90)
Constant	−0.339***	−0.368***	0.275***	0.267***
	(6.53)	(7.07)	(10.04)	(9.73)
Observations	4440	4440	4440	4440
R-squared	0.10	0.26	0.13	0.26
Zip code dummies	No	Yes	No	Yes

Log account volume is measured in January 2003. All regressions include regional dummies (absorbed by zip code dummies where present). Asymptotic *t*-statistics corrected for clustering at the zip code level are reported in parentheses.
* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

use and portfolio returns to be even stronger than in the brokerage sample.

As with the brokerage sample, we introduce regional and zip code dummies to capture unobserved heterogeneity. Columns 1 and 2 in Table 7 present OLS results on raw returns, where use of a BFA is seen to have a statistically significant negative effect. According to this model, BFAs reduce monthly log returns by 0.3% points, slightly less than IFAs in Table 4 (−0.4%). However, unlike IFAs, who were found to reduce overall portfolio risk, BFAs are found in columns 3 and 4 of Table 7 to increase total portfolio risk.

Given the negative BFA effect on returns and their positive effect on total risk, we expect a strong negative effect on Sharpe ratios, and this is confirmed by the last two columns in Table 7.[16] This pronounced negative effect of BFAs is consistent with our conjecture from above and with Inderst and Ottaviani (2009) who posit that advisory standards should be lower for BFAs than for IFAs because the latter face no internal agency conflicts with costly monitoring.

Consistent with results on IFAs, males exhibit lower returns and riskier portfolios. The initial size of the account contributes to higher returns, in levels or normalized by risk, and to lower portfolio variance. Columns 1 and 2 of Table 8 point to higher turnover rates (based on purchases) for BFA accounts. The estimated BFA coefficients are larger than the corresponding IFA ones (Table 6), suggesting lower advisory standards for BFAs than for IFAs.

Finally, regressions reported in columns 5 and 6 of Table 8 confirm that BFAs, as indeed IFAs, tend to push towards investing in mutual funds, consistent with their compensation incentives. All in all, our analysis of the bank sample produces remarkably consistent results with the brokerage sample and points to systematic negative effects of financial advisors rather than to statistical flukes or sample peculiarities.

[16] The coefficients of the BFA dummy are negative (−0.18), with values considerably larger than the corresponding IFA coefficients in Table 5 (−0.05 in columns 3 and 4).

8. Conclusions

We investigate who tends to use a financial advisor, whether investors tend to produce better account performance on their own rather than with the help of financial advisors, whether results depend on the advisory model (IFA versus BFA), and whether they can be traced to trading behavior and security choice. We also examine robustness of our findings with respect to asset pricing model, dummies for wider regions or zip codes, control variables, and estimation procedure (OLS versus IV).

Our first data set tracks accounts of a major brokerage firm, some of which are run with the help of an independent financial advisor (IFA). Sample statistics and regression analysis show that advisors tend to be matched with wealthier, older, more experienced, and female investors rather than with poorer, younger and inexperienced ones. Our second data set comes from a major commercial bank with branches throughout the country. We find that also bank clients who tend to consult a bank employee prior to executing a trade are older, wealthier and more likely to be female.

Descriptive statistics as well as regression analysis that controls for investors' characteristics and characteristics of the region of the account paint a very similar picture of the role of IFA and BFAs in account performance. In both samples, advised accounts offer lower returns than those run by similar investors without advisor input. Although IFA use reduces total portfolio risk, it still reduces ex post Sharpe ratios significantly. BFAs increase portfolio variance, lowering Sharpe ratios even more.

Trading costs and associated commissions earned by both IFAs and banks certainly contribute to these outcomes, since we find that advised accounts feature higher portfolio turnover (though not necessarily more frequent trading) relative to self-managed accounts. Consistent with their remuneration incentives, financial advisors tend to encourage lower account shares in directly held stocks. Robustness analysis suggests that our results on the negative role of IFAs are not an artifact of endogeneity between account performance and advisor use, nor of the way we adjust portfolio net returns for systematic risk.

Our results provide a new perspective on the role of financial advisors that might be useful for theoretical and policy analysis of their conflicting incentives, their likely effects, and the need to regulate them. Based on our findings, it should not be taken for granted that financial advisors provide their services to small, young investors typically identified as in need of investment guidance. Indeed, the opposite is true both for the broker and for the bank data we consider. The finding stands to reason: financial advisors with commission-based incomes naturally prefer to devote time to customers likely to trade on a bigger scale. However, it also creates doubts as to how viable financial advice is as a solution to the problem of limited financial literacy in the population. In view of the rapidly growing literature on investment mistakes, providing financial advice to inexperienced, naïve investors could be an alternative to trying to educate them in financial matters, but financial advisor incentives and tendencies of inexperienced clients might result in relatively few matches. Other alternatives, such as simpler products and carefully designed default options, may be more promising than currently existing forms of financial advice in averting negative distributional consequences.

Our findings imply that many financial advisors end up collecting more in fees and commissions than any monetary value they add to the account. This raises the further question of whether

advisors overcharge and should be regulated. While the case for regulation seems much clearer when advisors are matched with inexperienced investors, negative effects appear even when the tendency is for experienced investors to be using an advisor. In such cases, it may be that investors are inattentive and fail to monitor the advisors effectively; or that they face high opportunity costs of running accounts by themselves and are willing to pay a luxury premium to have their advisors run their accounts. What distinguishes these two cases is customer awareness of the financial advisor incentives and effects. Even if regulation is not warranted in both cases, transparency and information on the role and outcome of financial advice seem crucial. Moreover, this need is not limited to naïve, inexperienced customers but extends also to older, experienced ones. Thus, questionnaires on investor experience, such as those dictated by MIFID (the EU directive aimed at increasing financial markets transparency and competition), should not waive the need for information regarding incentives, ensuing conflicts of interest, and the outcomes of professional financial advice in terms of portfolio returns and risks, even for experienced investors.

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Appendix A. Endogeneity of financial advice

Although we define as advised portfolios those portfolios that are continuously assisted from 2003 to 2006, if performance is persistent over time one may suspect that portfolio performance actually induced the choice of the advisor. As mentioned in Section 6, in such a case, OLS regressions are problematic. In this appendix, we carry out IV estimation to examine the robustness of our main findings to possible endogeneity of financial advice. Finding suitable instruments in our context is not easy, and the robustness exercise described below, based on regional variation, is indicative and unavoidably rests on the validity of the identification assumption.

We choose to exploit regional variability in the share of financial services over GDP, and merge our two data sets with administrative data available from the German Federal Statistical Office, which provides a broad set of structural data on some 500 local areas. The system of German zip codes is more granular than the regional grid used by the Federal Statistical Office. Accordingly, we map the zip codes for customer accounts into the regional grid of the Statistical Office by assuming that zip-codes from the same region share the same structural characteristics.

We motivate the use of the GDP share of financial services by reference to the potential role that the density of financial services plays in reducing the cost of gathering financial information: the greater such density, the more likely it is that investors are able to gather information from local sources more cheaply, substituting for financial advice. Our identification assumption is that regional proximity with financial intermediaries affects account performance by facilitating the matching of account holders to financial advisors, but not directly. The instrument is collinear with the zip code dummies, which cannot be used in the estimation. Note however that in the IV estimates we still use wider regional dummies.

Table A1 reports the first-stage estimates for IFA and for BFA, and shows that being located in an area with a larger density of intermediaries reduces the probability of having an account run by an IFA or a BFA. In both cases, the coefficients are statistically different from zero (at the 1% and 5% level, respectively).

The IV estimates for portfolio performance are reported in Table A2. They are based on a standard IV estimator (with a linear probability model in the first stage) and standard errors adjusted for clustering at the local area level. With only one instrument, the model is exactly identified and we cannot provide a test of overidentification restrictions. However, we do find that the instrument has statistically significant impact on use of IFA (the *F*-statistic is reported in the last row of Table A2). The signs of the instrumented

Table A1
First-stage results: the determinants of having the account run by an IFA or a BFA.

	Brokerage sample (IFAs)	Bank sample (BFAs)
Male	−0.063***	−0.049***
	(12.32)	(3.16)
Employee	0.058**	−0.048***
	(2.49)	(2.61)
30 < Age ⩽ 40	−0.030***	−0.049
	(3.11)	(1.41)
40 < Age ⩽ 50	−0.002	−0.011
	(0.25)	(0.33)
50 < Age ⩽ 60	0.023**	0.055*
	(2.21)	(1.74)
Age > 60	0.089***	0.113***
	(7.62)	(3.89)
Log account volume	0.046***	0.028***
	(22.60)	(7.73)
Self-employed	0.062**	
	(2.56)	
Experience/100	0.165***	
	(3.58)	
Married	−0.025***	
	(6.06)	
Executive		0.001
		(0.01)
Housewife		0.005
		(0.18)
Retired		−0.022
		(0.95)
Financial services/regional GDP	−0.238***	−0.324**
	(6.58)	(2.53)
Constant	−0.301***	0.446***
	(9.85)	(7.54)
Observations	28,321	4440
R-squared	0.10	0.05

The table reports estimates from a linear probability model of having an independent financial advisor or a bank financial advisor. Log account volume is measured in January 2003. The regressions include regional dummies. Asymptotic standard errors corrected for clustering at the zip code level are reported in parentheses.
* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

Table A2
Instrumental variable regressions for the brokerage and bank sample.

	Brokerage sample (IFAs)			Bank sample (BFAs)		
	Log monthly returns (1)	Variance of monthly returns (2)	Sharpe ratio (3)	Log monthly returns (4)	Variance of monthly returns (5)	Sharpe ratio (6)
Financial advisor	−0.012***	−0.002**	−0.166***	-0.023***	0.003	−0.529*
	(3.68)	(2.54)	(3.27)	(2.60)	(0.34)	(1.73)
Male	−0.001***	0.000***	−0.029***	−0.000	0.001**	−0.048**
	(4.20)	(6.99)	(7.64)	(0.38)	(2.27)	(2.30)
Employee	−0.000	0.000**	−0.015	0.000	0.001	−0.026
	(0.54)	(2.14)	(1.31)	(0.12)	(1.17)	(1.12)
30 < Age ⩽ 40	0.000	0.000	−0.003	0.000	0.000	0.017
	(0.80)	(1.08)	(0.53)	(0.43)	(0.18)	(0.49)
40 < Age ⩽ 50	−0.000	0.000***	−0.013***	0.000	0.002*	0.019
	(0.44)	(5.31)	(2.59)	(0.06)	(1.89)	(0.64)
50 < Age ⩽ 60	0.000	0.000***	−0.011**	0.001	0.000	0.041
	(0.69)	(5.97)	(2.10)	(0.59)	(0.32)	(1.16)
Age > 60	0.000	0.001***	−0.009	0.000	0.001	0.067
	(0.44)	(5.57)	(1.21)	(0.34)	(0.37)	(1.45)
Log account volume	0.001***	−0.000***	0.028***	0.001***	−0.001***	0.032***
	(4.66)	(11.75)	(11.60)	(4.37)	(4.09)	(3.42)
Self-employed	−0.001	0.001***	−0.027**			
	(0.86)	(5.23)	(2.31)			
Experience/100	0.003***	0.000	0.073***			
	(2.97)	(0.39)	(4.24)			
Married	−0.000	−0.000***	0.004			
	(0.58)	(7.58)	(1.53)			
Executive				0.001	0.002	−0.014
				(0.95)	(1.47)	(0.32)
Housewife				0.001	0.000	0.009
				(1.13)	(0.18)	(0.34)
Retired				−0.001	−0.000	−0.019
				(0.90)	(0.13)	(0.83)
Constant	0.005***	0.007***	0.027	0.009**	0.012***	0.325***
	(4.02)	(18.28)	(1.20)	(2.31)	(3.28)	(2.72)
Observations	28,321	28,321	28,321	4440	4440	4440
Cragg–Donald *F*-stat.	43.30	43.30	43.30	11.23	11.23	11.23

The instrument is the GDP ratio of the financial asset share at the zip code level. The first stage regressions are reported in column 1 (brokerage sample) and column 2 (bank sample) of Table A1. Log account volume is measured in January 2003. All regressions include regional dummies. Asymptotic *t*-statistics corrected for clustering at the zip code level are reported in parentheses.
* Statistical significance at the 10% level.
** Statistical significance at the 5% level.
*** Statistical significance at the 1% level.

advisor effects on returns, variance and Sharpe ratios remain qualitatively unchanged as compared to the OLS results, for both the brokerage and bank sample. In particular, we find that advised accounts yield lower returns and Sharpe ratios, and that the negative effects are larger in the bank sample. Moreover, factors such as being female, experienced, and wealthier still contribute to higher returns, lower variance and higher Sharpe ratios.

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On the Accuracy of Regulatory Cost Estimates

Winston Harrington
Richard D. Morgenstern
Peter Nelson

Abstract

This study compares ex ante *estimates of the direct costs of individual regulations to* ex post *assessments of the same regulations. For total costs the results support conventional wisdom, namely that the costs of regulations tend to be overestimated. This is true for 14 of the 28 rules in the data set discussed, while for only 3 rules were the* ex ante *estimates too low. For unit costs, however, the story is quite different. At least for EPA and OSHA rules, unit cost estimates are often accurate, and even when they are not, overestimation of abatement costs occurs about as often as underestimation. In contrast, for those rules that use economic incentives, unit costs are consistently overestimated. The difference between the total-cost and the unit-cost results is caused by frequent errors in estimates of the effects of individual rules, which suggests, in turn, that the rule's benefits may also be overestimated. The quantity errors are driven both by difficulties in determining the baseline and by incomplete compliance. In cases of unit-cost overestimation, unanticipated technological innovation appears to be an important factor—especially for economic incentive rules, although procedural and methodological explanations may also apply.* © *2000 by the Association for Public Policy and Management.*

INTRODUCTION

Reflecting increasing concern about the accuracy of cost estimates of environmental and occupational safety regulations, the Office of Management and Budget (http://whitehouse.gov/OMB/inforeg.appendix.html) in 1998 observed that, "industry representatives and think tanks assert...that [government] estimates understate costs...while public interest groups and Federal agencies generally assert...that [government] estimates overstate costs." A great deal of debate has focused on the normative question of how (if at all) cost information should be used in regulatory decisionmaking. Beyond the occasional anecdote, however, little serious attention has been devoted to assessing the overall accuracy of cost information generated by and available to regulators. Is there evidence of systematic errors in these so-called *ex ante* cost estimates? If so, are the estimates too high or too low? What lessons are suggested for reform of rulemaking processes?

There is an interesting ideological divide in the types of evidence brought to bear in addressing these questions. Those who believe costs are underestimated often have in mind the costs of an entire program or legislative initiative. Superfund is a prime example. Critics argue that the program, originally designed to clean up Love Canal

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and a few other large sites, expanded its scope and became a "behemoth, towering over American environmental policy" [Cairncross, 1993]. Some have focused on the discrepancy between initial objectives of U.S. environmental laws, for example, the Clean Air Act (1970), and progress toward meeting those objectives.[1] Others argue that the *ex ante* estimates leave out some important cost categories, for example, regulatory-induced job losses, claims on management attention, discouraged investment, and retarded innovation. Dynamic general equilibrium analyses suggest that the long-run social costs of regulation exceed direct compliance expenditures by 30 to 50 percent [Hazilla and Kopp, 1990; Jorgenson and Wilcoxen, 1990].

In contrast, those who believe costs are overestimated prefer to look at the direct costs of complying with specific regulations. The most often cited example involves reductions of sulfur dioxide (SO_2) emissions mandated under the Clean Air Act Amendments (1990). In that case, the huge discrepancy between the early industry cost estimates (as high as $1,500 per ton) and recent allowance prices (currently about $200 per ton, up from $75 per ton in 1997) is taken as evidence of a problem of government overestimates [e.g., Browner, 1997].

The subject of this article is comparing the costs before and after implementation of such specific regulations, but not the broader and more contentious question of whether environmental programs grow far beyond their initial legislative intent (in part because of the challenge of even stating the question in an empirically testable way). So too, is avoided the question of indirect costs, largely because of the inability to obtain such information for individual regulations. Except as possible influences on agency estimates, we exclude industry cost estimates. Thus, the focus here is on cost estimates prepared by the government agencies directly involved in rulemaking.

Systematic errors in cost estimates prepared by regulatory agencies, if they exist, may have significant implications for resource allocation. If costs are routinely overestimated, thereby raising the apparent cost of new regulations, rulemaking would generally favor selection of less stringent emission control options (and, conversely, if costs are consistently underestimated). Large discrepancies would lead not only to bad decisions, but would misrepresent the true burden of regulation on society and undermine public confidence in the regulatory process. Not surprisingly, the belief held by many environmentalists that costs tend to be overestimated (and benefits underestimated) by regulatory agencies underlies many of their concerns about allowing cost information, and particularly benefit–cost analysis, to play a prominent role in regulatory decisions.

The only sure way of assessing systematic errors in regulatory cost estimates is to compare *ex ante* cost estimates, prepared at the time the regulation is issued, with actual costs determined *ex post*. However, *ex post* studies of the costs of regulation are scarce because rulemaking agencies have neither a legislative mandate nor a bureaucratic incentive to perform such analyses.[2] In fact, the conduct of *ex post* studies may detract from an agency's mission by using limited resources and by generating outcomes that may prove embarrassing. Not surprisingly, most detailed *ex post* studies have been carried out by independent researchers.

[1] The National Ambient Air Quality Standards, for example, were originally thought to be achievable within a decade. Yet, even today we still are still unsure how, when, or even if the original goals will be met.
[2] Recently Congress has shown greater interest in *ex post* information. For example, the Clean Air Act Amendments (1990) required the Environmental Protection Agency (EPA) to develop a retrospective assessment of the overall benefits and costs of the first 20 years of the act. The Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA) also contains requirements for retrospective studies.

LITERATURE REVIEW

It is a little surprising that so many observers believe that regulatory cost estimates overestimate the true costs of regulation, considering that costs of other government activities, especially procurement and public investment, are usually thought to be *under*estimated. "Government cost overruns" are a staple of headlines, call-in radio shows, and popular historical accounts,[3] whether the government in question is local (e.g., stadiums or convention centers), state (expressways), or national (defense projects).

Academic studies tend to support the popular view; for example, cost escalation in defense and other public investment projects has been called "pervasive and massive" by Quirk and Terasawa [1986].[4] Analytical models have proposed strategic and nonstrategic explanations for project cost underestimation. The former have generally relied on a principal-agent setup, often (but not necessarily) tied to particular forms of contract, for example, Quirk and Terasawa [1986], Harris and Raviv [1979], and Weitzman [1980].[5] In the absence of strategic behavior, models have also demonstrated that costs can escalate without strategic behavior, resulting from uncertainty in the production schedule [Terasawa, Quirk, and Womar, 1984] or from the "winner's curse" [Quirk and Terasawa, 1986]. That is, if actual project costs are uncertain and lowest-bidding contractors are selected, their tendency will be to underestimate project costs.

The literature on regulatory cost estimation is much thinner and focuses on strategic behavior by regulated firms. But in this case the analytic models suggest that costs may be either over- or underestimated.[6] Unlike the public investment literature, where little distinction is made between contractor and government cost estimates (the latter being the sum of the winning bids in a multi-contract project), the source of the estimate is important in regulatory cost estimation. And while no analytical models have been developed to explain *ex ante* cost estimation by regulatory bodies, a less

[3] Robert Caro [1974], for example, documents the legendary practices of Robert Moses, bureaucrat extraordinaire, who is said to have routinely and purposely underestimated the costs of the public works projects that transformed New York City (and state) between the 1920s and 1960s. Once construction got underway he would reestimate costs (usually multiplying them several-fold) and seek supplemental funding for the partially completed projects. In an even more striking example, McCullough [1978] recounts the disastrous French attempt to build an ocean-connecting canal in Panama in the 1880s. Costs were honestly underestimated initially because French engineers, misled by their Suez experience, failed utterly to understand the magnitude of their task. As the true scope of the project became known, however, the leaders of the quasi-public corporation, established to build and operate the canal, refused to revise the costs or acknowledge the difficulties for fear of embarrassing early backers of the project, especially its biggest backer, the French government.

[4] But this is not invevitable. In a comparison of realized and forecast construction costs of federal water projects, Haveman [1972] shows substantial variation and a tendency toward overestimating costs. More recently, McVeigh et al. [1999] have found estimates made in the 1970s and 1980s of the cost of renewable energy technologies to be reasonably accurate.

[5] A non-defense example of strategic cost underestimation can be found in federal support for local transit projects, which one observer attributes largely to the perverse incentives in the funding mechanism that favor capital-intensive projects, such as fixed rail over buses and other more flexible systems [Pickrell, 1992].

[6] Kwerel [1977] and Spulber [1988] conclude that the incentives depend on the instrument: Under a price instrument (e.g., effluent fee), firms have an incentive to underestimate compliance costs, while under a quantity instrument (marketable permits or command and control), the incentive is reversed. This assumes, of course, that the firm seeks to avoid regulation. A firm may also seek regulation of its industry as a way of "raising rivals' costs" [Salop and Scheffman, 1983], in which case these incentives are reversed. Perhaps an example is provided by du Pont's seemingly enlightened response to Chlorofluorocarbon (CFC) regulation. Since it owned patents on a number of promising substitutes, the company may have viewed the CFC phaseout as an opportunity to increase market share [Morrisette, 1989]. Yet Hammitt [1997] still found that costs were overestimated, at least in the early phases of regulatory development.

formal literature addresses the procedures used in agency rulemaking and reveals problem areas that can lead to over- or underestimates. Thus, Higgins and Buc [1997] argue that inadequacies in the Environmental Protection Agency (EPA) methods bias the cost estimate toward a cost overestimate.[7] Fraas and Lutter [1996] also find fault with the EPA's cost estimates. However, they believe that costs are more likely to be underestimated because of errors of omission during the rulemaking process.[8]

The other relevant strand of literature consists of a handful of papers, like the present one, that attempt to compile broad-based assessments of the accuracy of environmental or occupational regulations affecting the private sector. An early study compared sector-level capital expenditures for pollution control to EPA forecasts [Putnam, Hayes, and Bartlett, 1980]. The authors found overestimates were more prevalent than underestimates, with EPA's forecasts ranging from 25 percent below to more than 150 percent above actuals. Industry overestimates were both larger and more frequent. Unfortunately, the use of aggregate self-reported data clouds the interpretation of the results.[9]

The Office of Technology Assessment [OTA, 1995] conducted a broad-scale review of Occupational Safety and Health Administration's (OSHA) methodologies for regulatory impacts. The OTA review considers a number of studies containing *ex ante/ex post* cost comparisons, some of which are included in the present study.[10] OTA found that most attention is placed on so-called "conventional" control measures rather than on new technology. Overall, the OTA report concluded that "the actual compliance response that was observed included advanced or innovative control measures that had not been emphasized in the rulemaking analysis, and the actual cost burden proved to be considerably less than what OSHA had estimated" (p. 10).

A recent study by Goodstein and Hodges [1997] of a dozen EPA and OSHA regulations finds that most pollution control programs turn out to be less costly than had been estimated beforehand. They find that "reducing pollution emissions at the source... is almost certain to be [substantially] cheaper than we think it will be." They argue that overestimates result from new technologies developed in response to the regulations. Our approach differs from that of Goodstein and Hodges in several ways. First, Goodstein and Hodges do not grapple with key baseline issues, which can affect the quantity of emission reductions actually induced by the regulation [Squitieri 1998]. Second, their conclusions rest, in part, on comparisons with *ex ante* studies conducted by industry. Since strategic behavior on the part of industry may lead them to overstate costs, the present study focuses exclusively on *ex ante* cost estimates developed by the regulatory agencies. Third, Goodstein and Hodges include in their list not only

[7] In particular, Higgins and Buc [1997] argue that in addition to the failure to consider innovation or cost-reductions through learning by doing, EPA analyses generally fail to acknowledge the overhead or "fixed" nature of certain costs, treating them as marginal to the environmental regulation when they probably are not.

[8] In three of the five Resource Conservation and Recovery Act (RCRA) rules examined by the authors, the EPA failed to include the costs of an important waste stream consisting of "nonhazardous" toxic wastes, such as batteries and fluorescent lamps. These wastes were excluded from the cost estimate because of uncertainty whether they would be subject to the rule, as well as a lack of data at the time of the analysis. The rules were later judged to apply to these waste; however, a subsequent rule exempted these wastes at an estimated savings of $200 million, an amount the authors infer to be a cost that should have been in the original rule.

[9] The Putnam, HayesBartlett (PHB) [1980] study is based, in part, on the Pollution Abatement Cost and Expenditure Survey (PACE) collected by the Bureau of the Census (1972–1995). Although the PACE data are neither regulation specific nor disaggregated beyond the environmental receiving medium, PHB argued that they were suitable for at least rough *ex ante/ex post* comparisons of the early period of environmental regulation. However, this is highly debatable.

[10] For some of the cases OTA reviewed, available information was insufficient to develop reliable *ex post* estimates.

comparisons of *ex ante* and *ex post* costs, but also comparisons of *ex ante* estimates with later *ex ante* estimates. This article is limited to the former.

DEFINING REGULATORY COST ESTIMATES

Although the notion of accuracy in regulatory cost estimation may appear straightforward, in actuality it is anything but. The hard part is to identify just what it is that ought to be compared. After all, comparing costs *ex ante* and *ex post* means more than just determining what is spent; care is also required to ensure comparability in what is being purchased. To shed light on the conceptual issues we ask: What is meant by "cost"? What is meant by "regulation"? What is meant by "estimates"? And what is meant by "accuracy"?

Cost

To determine the cost (or benefits) of a regulation, one must compare conditions in a world with the regulation to conditions in a world without it. To produce *ex ante* estimates, both the "with" and the "without" scenarios must be modeled; they cannot be observed. For the *ex post* calculation, the world with the regulation is observed, but the counterfactual is not. To produce an *ex post* estimate, one must determine the actual outcome empirically and compare it to a hypothetical baseline with the *status quo ante*. The definition of baselines is thus somewhat arbitrary, depending on the analysts' beliefs about what would have happened without the regulation. In other words, regulatory cost estimates can hardly escape being to some degree hypothetical whether they are made *ex post* or *ex ante*.

To an economist, the cost of a good or service is the maximum value of the opportunities foregone in obtaining that good or service.[11] Regulatory analyses generally account for the most obvious categories of costs but for practical reasons ignore costs that are difficult to measure. The most commonly considered costs are the capital and operating expenditures associated with regulatory compliance. Such activities are typically carried out and paid for by the private sector, although some activities fall on state and local governments (e.g., drinking water) and some on the federal government (e.g., compliance expenditures of the Tennessee Valley Authority [TVA] and Bonneville Power Administration).

Other direct costs are also often included in government analyses. They are particularly noticeable in analyses of automobile regulations, and they often show up as negative costs. Thus, an important element in the estimates of the cost of standards for new motor vehicles is the improved fuel economy and reduced maintenance requirements attributable to the introduction of computerized fuel injection, a technology that provides many engine benefits besides lower emissions [USEPA, 1993]. The cost analysis for the vehicle inspection and maintenance program also claims large fuel economy benefits resulting from better engine performance [USEPA, 1992]. But these other direct costs are not always negative costs. For example, inspection and maintenance cost analysis counts the cost of motorists waiting in line at testing stations.

In contrast, the other categories of costs—including government administration of environmental statutes and regulations, some of the other direct costs, general equilibrium effects, and transition costs—are rarely considered in regulatory cost

[11] More precisely, the cost of a regulation is equal to "the change in consumer and producer surpluses associated with the regulation and with any price and/or income changes that may result" [Cropper and Oates, 1992, p.721].

estimates. For one thing, often it makes sense to speak only of these costs with respect to regulation in the aggregate rather than for specific regulations. The cost of administration of environmental statutes is usually omitted because of a joint cost allocation problem; besides, the government's costs are thought to be small relative to those of the private sector. As for the other costs, the principal reason they are excluded is lack of credible information or analytical resources to apply whatever data or models do exist. Thus, additional management resources or disrupted production is plausibly important, but no *ex ante* estimates have been prepared.[12]

In the 1970s and 1980s, the effects of some EPA regulations on plant closures and unemployment were estimated, albeit crudely, as a part of the economic analysis, for example, effluent guidelines for industrial water pollutant discharges. In recent years, this style of economic analysis has been generally superseded by more sophisticated analyses of the welfare effects of regulations. The Unfunded Mandates Reform Act of 1995 requires that cost estimates take into account transitional and indirect costs. The cost analyses examined here were conducted before the growing interest in indirect cost and thus do not generally include these cost categories.[13]

Regulation

The issue for regulation is one of scale. There may be good reasons why one would want to estimate the cost of meeting an emission regulation at a particular plant, the cost of an emission regulation for the entire country, or the cost of meeting an ambient environmental quality objective. As the scale increases, the uncertainties multiply, and biases of estimation not evident at low levels of aggregation may become important.

The focus here is on the cost estimates prepared by regulatory agencies for specific rules. As required by presidential executive order, for every major rule (those with an estimated annual cost in excess of $100 million) agencies must prepare a regulatory impact analysis (RIA)[14] containing an estimate of compliance costs of the alternatives considered. It may be possible to make some judgments about the qualities of those estimates and give at least a preliminary answer to the question of whether systematic errors exist.

Estimates

In evaluating the quality and usefulness of a regulatory cost estimate, it is important to keep in mind who is making the estimate and what its purpose is. Before a regulation

[12] There have been some attempts to measure these costs *ex post*, at least indirectly, such as Gray and Shadbegian [1995] and Joshi and colleagues [1997] in the steel industry, and most recently, Morgenstern, Pizer, and Shih [1998a]. These studies estimate cost functions to examine the effect of reported abatement expenditures (as measured by PACE) on total cost. The other direct costs are positive if and only if the coefficient on the pollutant abatement expenditure variable is positive. While the Joshi at al (1997) study finds multipliers up to 12, Morgenstern and colleagues (1998a) estimate the likely multiplier to be less than one, suggesting that other direct costs are more than offset by savings elsewhere in the production process. This may indicate the joint cost aspect of some environmental spending. Of course, this analysis can be done only for fairly large aggregates of regulations, for that is the only way the *ex post* compliance expenditure data are reported. Also, at least one study has considered the effect of regulation-induced uncertainty on stock prices, and hence on firms' cost of capital (Garber and Hammitt, 1998).

[13] In any event, the number of plant closures or jobs lost as a result of environmental regulation is likely small. [Morgenstern, Pizer, & Shih (1998b)].

[14] Referred to as "Economic Analyses" in Executive Order 12866.

is adopted, information about response options and costs may be asymmetrically distributed; potentially regulated parties generally have better information about alternatives for meeting requirements than regulatory agencies and advocacy groups. At the same time, however, industry cost estimates may be too high if firms do not fully anticipate cost-saving measures they may discover once resources are directed to compliance.[15]

These characteristics are clearly important for cost comparisons. Even more important, however, is the fact that credible *ex ante/ex post* comparisons cannot be made if the relevant studies do not include the same components or do not refer to the same cost concepts. For purposes of this article, it is far more important to match studies with the same components than to answer the question of whether the indirect costs belong in the estimate.[16]

Part of the difficulty of making cost comparisons is that actual outcomes can deviate from predicted ones in so many ways that it is not easy to know what is comparable. Consider the following example. Suppose a cost estimate for a pollution-abatement regulation is to be prepared based on an industry of 100 plants, with pre-regulatory emissions averaging 100 units per day. Suppose further that the regulation calls for emissions to be reduced to 25 units per day at a cost of $200,000 per plant. After implementation, a survey is conducted to estimate the real cost of the regulation. To simplify the discussion, assume the baseline is identical to the *ex ante* estimate. Some of the possible outcomes are shown in Table 1.[17]

The first of these four cases is an example of mis-estimation of per-plant costs. The next three are examples of various ways in which the "quantity"—that is, emission reductions—of regulatory output is different from prediction.

Case 1. The cost per plant is overestimated by a factor of 2, while all other quantities are estimated correctly, so that costs per emission unit as well as costs per plant are overestimated. This is probably the situation most observers have in mind when they assert that costs are overestimated.

Case 2. In this case, costs are estimated correctly on a per-plant basis, but an underestimate of the number of plants means that the total costs exceed the estimate. This type of uncertainty would include the case where the total number of plants was known but the number of plants with a given characteristic or technology is not. This might apply, for example, to landfill sites subject to corrective action requirements.

Case 3. Again, costs per plant are estimated accurately, but the preregulatory emissions are much less than originally thought. This could be considered a case of accurate estimation because the costs per plant are estimated accurately and the environmental goal is met. Alternatively, it could be considered underestimation because the cost effectiveness, measured by the cost per unit emission reduction, is underestimated.

[15] The hypothesis that environmental regulation triggers innovation that can offset some or all environmental compliance costs was initially proposed by Porter [1991] and supported by Porter and van der Linde [1995]. For a counter view see Jaffe et al [1995] and Palmer, Oates, and Portney [1995].

[16] Smith, Platt, and Ellerman [1998] contains an interesting discussion of how long-run and short-run costs, as well as marginal and average costs, are frequently confused in cost comparisons of the federal SO_2 program.

[17] Similar examples can be developed for other types of regulations, although they may not be so easily quantified. For private land-use regulation, for example, the three "quantity" elements of interest are the land area involved and the range of permitted activities before and after regulation. The cost of regulation is the reduction in the market value of the land that would accompany implementation of the regulation.

Table 1. Cost estimation: some hypothetical cases.

	Ex ante estimate	Alternative *ex post* outcomes			
		1	2	3	4
Number of plants	100	100	150	100	100
Emissions, pre-regulation	100	100	100	50	100
Emissions, post-regulation	25	25	25	25	50
Cost per plant	$200,000	$100,000	$200,000	$200,000	$200,000
Aggregate cost (in millions)	$20	$10	$30	$20	$20
Emission reductions	7500	7500	11,250	2500	5000
Cost per emission unit	$2666	$1333	$2666	$8000	$4000

Case 4. Here again costs per plant are estimated accurately, but the post regulatory emissions are not. Ordinarily, this will not happen with command and control regulation because the post regulation emissions are usually set by the regulation. However, it could occur if the regulation is not enforced successfully or if it calls for the installation of a specific technology, rather than the achievement of an emission target.

Accuracy

Comparison requires a criterion to define when the *ex ante* estimate of total cost (or unit cost or quantity) is accurate or is an under- or overestimate. It is tempting to equate the *ex ante* and *ex post* estimates with forecasts and actuals, but that terminology overlooks the fact that the knowledge of the *ex post* situation is decidedly imperfect and in some ways, perhaps, little better than the knowledge of the situation *ex ante*. As discussed earlier, the quality of the *ex ante* cost estimate is limited by three basic uncertainties:

- What are firms currently doing?
- What will firms do in response to the regulation, and what will it cost?
- What would firms have done without the regulation, and what would it have cost?

The first of these items is in principle knowable *ex ante* but in practice is usually not known very well. The second and third items are hypothetical, based on economic and process-analysis models, discussions with industry experts, and perhaps analogies from other industries.

The *ex post* cost estimate must deal with the same uncertain elements but from a more favorable position, especially for the first and second possibilities. It can be no worse than the *ex ante* estimate because it has more information to draw on.[18] In

[18] There remains the possibility of bias in the *ex post* study, but as almost all case studies were prepared by academic experts without an interest in the outcome, this possibility is minimized.

addition, the very process of implementation and enforcement generates a great deal of information, not only about the responses of firms to the regulation but about the situation before implementation. (This information may be difficult to collect or assemble, but at least it exists.) What is still missing is information on the third possibility, the counterfactual, and even here there is often better knowledge on exogenous trends and events that can affect costs. This means that the *ex post* estimate will in all likelihood be much closer to the "truth."

Thus, even with the *ex post* estimate's lack of precision, it is probably more accurate than the *ex ante* estimate, which justifies using the former to judge the quality of the latter.

RESULTS

Literature review and discussions with more than 50 environmental experts were used to develop as large a sample of rules as possible for this study. The basic criteria for inclusion in the study were the existence of an *ex ante* cost estimate developed by a regulatory agency with substantial expertise in cost analysis, and a relatively detailed *ex post* estimate, typically (but not always) prepared by an academic or independent analyst. At the state level four rules, all from California, were identified that met these criteria. Internationally, only three rules were included in the data set. In the end, 28 rules were included.[19]

The list of OSHA rules seems reasonably representative.[20] For EPA, the list has a disproportionate number of larger, more controversial regulations (e.g., SO2 and lead phasedown). Not surprisingly, our EPA list also contains a disproportionate number of rules where the results can be readily measured in observed prices (e.g., reformulated gasoline, chlorofluorocarbons [CFCs], SO_2) or quantities (e.g., pesticide rules). Like the EPA regulations, the California and the foreign rules in the sample also tend to cases where the outcomes can be readily measured in terms of either prices or quantities. The bias imparted by these particular sample characteristics is unclear, although one can certainly make the case that larger, more controversial rules tend to involve greater analytical effort on the part of the regulatory agency. Thus, the cost estimates for the rules in the sample may be more accurate than those prepared for "typical" rules. One striking point that emerges from the data set is the relatively

[19] SO_2 Phase I and Phase II are actually part of the same regulation. However, because of large differences in the number of facilities covered and the stringency of the emission requirements, they are treated separately. One reviewer pointed to the National Highway Transportation Safety Administration's center-high-mounted stomp lamp rule. Actual costs for this rule were approximately double those forecast in the RIA. It was omitted it here because of the focus on environmental and occupational health and safety regulations. Also omitted were a number of smaller pesticide rules for which *ex post* studies are now in preparation because of their small economic impact.

In the case of CFCs, the initial RIA was significantly revised at the time the domestic rulemaking was finalized. However, since the initial RIA was most influential in the U.S. decision to sign the governing international accord (the Montreal Protocol) we treat it as the relevant *ex ante* analysis. Interestingly, the earlier (1986) analysis generally overestimated costs while the revised analysis (1988) was more accurate. See the appendices. For further discussion see Hammitt [1997].

[20] As the OTA study notes: "To stretch the modest resources OTA had for this project, credible, already published case studies were used where possible. This practice accounts for the Vinyl Chloride, Cotton Dust, and Ethylene Oxide standards in the case study set. (The Vinyl Chloride and Cotton Dust standards are also widely considered 'classic cases' in OSHA's rulemaking history.) Original research efforts by qualified researchers...were commissioned in the other five cases. The Occupational Lead, Formaldehyde, and Grain Handling Facilities standards were included because of their controversial nature and prominent roles in OSHA's rulemaking history in the 1980s. The Mechanical Power Presses and Powered Platforms rulemakings were selected more or less at random from among the full group of safety standards promulgated by OSHA after 1985" [OTA, 1995, p. 53].

large representation of rules incorporating market-based incentives, which account for only a tiny fraction of total regulatory activity in the United States and elsewhere. Eight such rules are included in this data set, half of them drawn from state and foreign experience. [21] Proposed but never promulgated rules are excluded.[22]

Problems of comparability among the different *ex post* analyses precluded a strictly quantitative analysis, and necessitated a qualitative approach. An *ex ante* analysis is considered "accurate" if the *ex post* estimated costs fall within the error bounds of the *ex ante* analysis of if they fall in the range of ±25 percent of the *ex ante* point estimate.[23] Three outcomes are compared: the quantity of emission reductions achieved, unit pollution reduction costs, and total costs. The quantity of emission reductions achieved reflects the net effect of the quantity-related factors discussed in the preceding section, that is, the number of firms or agents subject to regulation and the estimated emission rates with and without regulation.

Unit pollution reduction cost outcomes generally refer to costs per unit of emissions reduced (over the relevant range), although other margins can be important in individual cases. In pesticide regulation, for example, the relevant margin is costs per acre. For the inspection and maintenance rule, costs can be usefully expressed both as costs per unit of emissions or costs per vehicle.

Perusal of Table 2, which summarizes the results for the individual rules, reveals a consistent tendency across all subcategories—EPA, OSHA, state, and foreign— to overestimate total costs and pollution reductions. (Appendix A contains a complete rule-by-rule analysis). Overall, **pollution reductions** were overestimated in 9 of the *ex ante* analyses examined and underestimated in 4 of them. In 13 cases, the quantity predictions were judged to be about right. The **per-unit costs** of regulations were even more likely to be overestimated; in 14 cases, per-unit costs were overestimated, while they were underestimated in 6 cases. **Total costs** were overestimated for 15 rules and underestimated in just 3 cases and were comparatively small regulations—EPA's aldicarb and CDEC bans and OSHA's powered platform regulation.

Both EPA and OSHA tended to overestimate rather than underestimate quantity reductions. EPA overestimated quantities in 4 of the 13 regulations examined and underestimated them in 1. The tendency was even more pronounced for OSHA; the agency overestimated reductions in 5 of 8 cases and underestimated them in none.

In contrast, when the focus is on per unit costs, the outcome is quite different. For rules promulgated by either EPA or OSHA there is no clear evidence of mis-estimation of per unit costs. Specifically, EPA overestimated per-unit costs for five regulations, underestimated them for four regulations, and accurately estimated them for four. Of the four EPA regulations that had per-unit cost underestimates, three were relatively small pesticide rules—the bans of dinoseb, CDEC, and aldicarb. OSHA overestimated per unit costs for three rules, underestimated them for two, and accurately predicted them for three.

Pesticide regulations have some unique features that affect the assessment of the accuracy of their *ex ante* cost forecasts, and for this reason results for federal

[21] The eight are leaded gas, CFCs, SO_2 Phase I, SO_2 Phase II, RECLAIM (NO_x), RECLAIM (SO_x), Singapore auto licensing, and the Bergen toll ring. As to why these market-based rules are so heavily represented, two obvious answers are: 1) it is easier to obtain *ex post* information on rules involving market-based incentives; and 2) economists, who conduct most of the *ex post* studies, have a proprietary interest in the performance of economic incentives, much as a parent has a proprietary interest in his child's school performance. While no suggestion that this leads to a bias is implied, it may create a greater interest in conducting the *ex post* studies in the first place.

[22] For example, Indoor Air in the Workplace, *FR* 15968, April 5, 1984.

[23] Sensitivity analyses revealed that the 25 percent figure is reasonably robust. For example, raising the figure to 40 percent only changes one classification. (California Air Resource Board's (CARB) per-unit cost estimate for low-emitting vehicles changes from an overestimate to accurate. RECLAIM SO_x is on the border of a 40 percent cutoff.)

Table 2. Case study results, regulation type.

	Accurate	Overestimate	Underestimate	Unable to determine
All Regulations (N=28)				
Quantity reduction	13	9	4	2
Unit cost	8	14	6	0
Total cost	5	15	3	5
Federal Regulations (n=21)				
Quantity reduction	11	9	1	0
Unit cost	7	8	6	0
Total cost	4	13	3	1
EPA Regulations (n=13)				
Quantity reduction	8	4	1	0
Unit cost	4	5	4	0
Total cost	3	7	2	1
Federal Rules Excluding Pesticides (n=15)				
Quantity reduction	6	8	1	0
Unit cost	6	6	3	0
Total cost	4	9	1	1
Pesticide Bans (n=6)				
Quantity reduction	5	1	0	0
Unit cost	1	2	3	0
Total cost	0	4	2	0
OSHA Regulations (n=8)				
Quantity reduction	3	5	0	0
Unit cost	3	3	2	0
Total cost	1	6	1	0

regulations excluding pesticide bans are also presented. Perhaps the most important feature is that EPA has a considerable number of options at its disposal if the burdens of a pesticide ban turn out to be too onerous. The agency can grant emergency exemptions to farmers, allowing them temporary use of the banned pesticide or a normally prohibited substitute. Similarly, the agency can approve the use of new pesticide through a new registration, so that farmers have a pest control option that was unavailable at the time of the *ex ante* cost estimate. The regulatory flexibility that the agency possesses with respect to pesticides operates as a safety valve and prevents total costs from becoming too large. Secondly, pesticide regulations tend to be outright bans, so there is usually very little uncertainty with regard to future quantity reductions. Finally, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) is one of the few environmental statues that requires a cost–benefit test prior to promulgation of a regulation. Most of the other federal *ex ante* studies in this data set were conducted to comply with an executive order mandating an assessment of the costs and benefits of all large regulations. Therefore, in comparison with the other federal rules in the data set, the pesticide regulations tend to be of much lower dollar value, because the *ex ante* studies are not limited to large regulations. The major effect of omitting

pesticide regulations is that the percentage of per-unit underestimates drops. Pesticide regulations make up 29 percent of the federal rules in this sample (6 of 21) but account for half of the price underestimates (three of six). However, the sample size is very small.

An often-discussed issue is whether the accuracy of cost estimates is improving over time. As seen in Table 3, for the seven federal rules enacted before expansion of Executive Office oversight of federal rulemaking in 1981, three had overestimates of unit cost, three had underestimates, and the other was accurate. For the 16 post-1981 rules, 5 had overestimates, 3 had underestimates, and 6 were deemed to be accurate. Although the sample is too small to make meaningful statistical comparisons, a considerably higher percentage of regulations fall into the "accurate" category after 1981.

Similarly, there appears to be some improvement in the accuracy of pollution reduction forecasts over time. For the pre-1981 rules, four of seven overestimated pollution reduction; after 1981, five *ex ante* analyses overestimated quantities, one underestimated them, while eight were classified as accurate. The improvement in quantity forecasting is reflected in the total cost estimates. All but one of the pre-1981

Table 3. Case study results, regulation characteristics.

	Accurate	Overestimate	Underestimate	Unable to determine
Federal Regulations—pre-1981				
Quantity reduction	3	4	0	0
Unit cost	1	3	3	0
Total cost	0	6	1	0
Federal Regulations—post-1981				
Quantity reduction	8	5	1	0
Unit cost	6	5	3	0
Total cost	4	7	2	1
Federal Regulations >$100 million/year				
Quantity reduction	5	7	1	0
Unit cost	4	5	4	0
Total cost	3	8	1	1
Federal Regulations <$100 million/year				
Quantity reduction	6	2	0	0
Unit cost	3	3	2	0
Total cost	1	5	2	0
Regulations Using Economic Incentives				
Quantity reduction	3	1	4	0
Unit cost	1	7	0	0
Total cost	2	4	0	2

ex ante analyses overestimated total costs. The post-1981 estimates overestimated total costs in seven cases, underestimated them in two, and were accurate in four cases. While overestimates are still more likely than underestimates, a much larger share of both total cost and quantity predictions have been accurate for recent rules.

Federal rules are also separated by annual dollar values, the arbitrary cutpoint being $100 million per year in 1990 dollars. There does not appear to be a great deal of difference between the two groups, except that quantity forecasts tend to be much more accurate for the smaller regulations. One possible explanation is that a large share of the smaller rules are pesticide rules (four of eight) and, because these rules are bans, there is not much uncertainty associated with the quantity estimates.

For seven of the rules that employed economic incentives, the agencies overestimated per-unit costs, in some cases substantially. For the eighth rule, which reduced the amount of lead permitted in gasoline, costs may also have been overestimated, but the data are inadequate to make a clear case [Nichols, 1997]. Thus, although the sample is small, it appears that rules that use an economic incentive approach are more likely to result in cheaper-than-expected pollution reductions. One likely reason is that the increased flexibility afforded by these regulations makes it harder to predict how firms will achieve compliance.

DISCUSSION

Examination of the case study results and the extant literature, together with discussions with regulatory experts, generated numerous explanations of why *ex ante* cost estimates by regulatory agencies might differ from *ex post* calculations. Explanations are divided into five categories. The first is technological innovation, considered by Goodstein and Hodges and others to be the primary explanation for cost overestimation. Other explanations include "quantity errors" (both baseline and compliance estimates), plus three procedural and methodological practices of rulemaking. These hypotheses are not mutually exclusive; each can be true for different rules, and in some cases may each apply to the same rule. Some lead to cost overestimation, while others may lead to either over- or underestimation.

Technological Innovation

Most regulatory cost estimates ignore the possibility of technological innovation. Agencies often have a legal obligation to identify a specific means for firms to meet the regulation, a requirement that seemingly precludes certain types of projections. Technical change is, after all, notoriously difficult to forecast; all that can be said with confidence, based on historical experience, is that the cost of compliance will likely decline, but no one can say at what rate.

In the case of SO_2, scrubbing turned out to be more efficient and more reliable than expected. *Ex ante* estimates assumed that scrubbers operate at 85 percent reliability and remove 80 to 85 percent of the sulfur. In fact, scrubbers have typically run in excess of 95 percent reliability, removing 95 percent of the sulfur. Unanticipated opportunities have also arisen to blend low and high sulfur coal in older boilers up to a 40/60 mixture, compared with the 5/95 mixture originally estimated. Analysts have argued that these unanticipated innovations were driven by competition from rail, as well as by market opportunities, enhanced by the SO_2 trading scheme which allowed firms to profit from marginal reductions in emissions [Carlson et al., 1998; Smith, Platt, and Ellerman, 1998]. Several OSHA standards (e.g., vinyl chloride and cotton

dust) and the CFC phase-out provide additional examples of unanticipated innovation leading to lower costs. [24,25]

However, unanticipated technical innovation does not always lead to cost overestimates. OTA [1995] cites the case of occupational lead exposures where "...the 'new technologies' envisaged at the time of rulemaking for compliance in the blast furnace area of plants have not progressed..." (p. 57).[26]

Delays can also affect the costs of compliance. Consider the case where a target industry vigorously protests a proposed regulation and produces cost estimates suggesting that implementation would cause widespread economic harm. The protest causes implementation to be delayed. When the rule is eventually promulgated, it is discovered that compliance costs are less than originally predicted. Afterward, the case is cited as yet another example of "wolf sightings" from industry. And yet, chances are that if the regulation had been promulgated immediately the costs would have been higher than initially estimated. Hammitt [1997] notes that during the two-year period the CFC rule was being developed, "great attention was focused on the identification and development of technological alternatives to CFCs." Still, time is not always a decisive factor. Despite extensive delays in the I/M rule beyond the original 1993 deadline, costs were still substantially underestimated.

Quantity Errors: Baseline Compliance Issues

As shown in Table 2, many prospective analyses have mis-estimated the emissions reductions resulting from a rule. Thus, total costs are different than expected, even though the per-unit costs were accurately forecast. Regulations that have produced lower pollution reductions than were expected are often cited as examples of *ex ante* cost overestimation. However, in these cases, total benefits are also smaller. Society may pay less, but it gets less.

Inaccurate prediction of emissions reductions can occur through mis-estimation of the baseline emissions that would exist without the regulation. Overestimate of the total cost of OSHA's 1972 asbestos regulation is attributable to erroneous exposure assumptions [Mendeloff, 1988]. Similarly, OSHA's cotton dust rule significantly overestimated the number of workers affected by the regulation [Viscusi, 1992]. Analysts can also fail to foresee developments affecting the quantity of emissions that must be reduced to comply with a rule. In the case of SO_2, analysts did not foresee an estimated two million tons of reductions that resulted from railroad deregulation and other factors unrelated to the EPA regulations [Burtraw, 1998a]. Curiously, the

[24] When the original cost analysis was performed for the CFC phase-out it was not anticipated that the hydrofluorocarbon HFC-134a could be substituted for CFC-12 in refrigeration. However, as Hammitt [1997] notes, "since 1991 most new U.S. automobile air conditioners have contained HFC-134a (a compound for which no commercial production technology was available in 1986) instead of CFC-12" (p. 13). He cites a similar story for HCFC-141b and 142b, which are currently substituting for CFC-11 in important foam-blowing applications. In contrast, Hammitt notes that "reductions in CFC-113 consumption have not relied as extensively on new compounds; major reductions have been achieved by substituting other solvents and blends and by altering production processes so that smaller quantities of solvent are required" (p. 13).

[25] For OSHA's vinyl chloride rule, OTA [1995] reports that "a significant production improvement not forseen. . . was the proprietary "stripping" process commercialized within a year of promulgation, which provided a substantially improved means for producing PVC resin while reducing vinyl chloride exposures" (p. 57). For cotton dust, the OSHA analysis ". . . missed the sizeable extent to which dust control was achieved as a by-product of an aggressive drive to modernize" (p. 57).

[26] In that industry the emphasis has been on respiratory protection programs, rather than on the expected engineering controls.

data set presented here contains no baseline underestimates. In fact, agencies may have a strategic interest in enhancing the potential seriousness of the problems they are regulating.

Another source of quantity errors arises from the inability to predict a regulation's effectiveness in achieving the desired pollution reduction. A retrospective analysis of OSHA's 1976 coke-oven standard found widespread noncompliance [Mendeloff, 1988]. OSHA's occupational lead standard was not met primarily through the engineering approach envisioned by the *ex ante* analysis, but rather through the use of protective gear for workers. Although workers were protected, air lead levels in plants remained extremely high several years after the regulation's promulgation [OTA, 1995]. Not surprisingly, the high cost of a regulation may result in compliance strategies that do not produce the desired benefits. Thus, underestimation of unit costs can lead to the overestimation of total (social) costs.

Uncounted Cost Reductions Achieved during the Regulatory Review and Public Comment Periods

Under the Administrative Procedures Act (APA), agencies are required to go through a series of standard procedures, including formal proposal and public notice and comment, before new regulations can become effective. These procedures have become a bit of a ritual in Washington, often spawning complex technical, economic, and legal arguments among agencies and the interested public. Not surprisingly, rules are often modified between proposal and promulgation. Yet the initial cost estimates are not always modified to fully reflect the rule changes.

The conventional wisdom is that agencies propose relatively stringent rules with the tacit understanding that the final regulations will be softened somewhat in response to comments from prospective regulatees. Agency staff often justify such tactics as a means of pressuring an industry reluctant to reveal internal cost or emissions information that is necessary to set "reasonable" rules. One recent analysis documented *net* cost-saving rule changes made during the regulatory development process occurred in all twelve of the rules studied [Morgenstern and Landy, 1997].

Rule changes can occur in response to concerns raised by OMB, as a result of new data or analysis generated inside our outside the regulatory agency, or as a result of lobbying by an interested party. One study of EPA's rulemaking process for effluent guidelines between 1972 and 1978 showed a marked asymmetry in the number and the nature of comments on the rules [Magat, Krupnick, and Harrington, 1986]. The affected industries generated most of the comments on the regulations and virtually all the comments on their specific characteristics (costs predicted and emission reductions required). Environmental and public interest groups commented infrequently, and when they did their comments were often of a general nature, having more to do with the pace with which regulations were being prepared rather than the details of particular regulations. Between the initial contractor document and the proposed regulation, and again between the proposal and promulgation, the effluent guidelines' stringency was generally loosened and cost estimates raised.

The key question is whether the rule changes are always or even systematically captured in the final cost estimates issued by the agency. Especially since rule changes often occur at the very end of the process—sometimes just days before promulgation of the rule—in many cases without the input of the agency's economic experts, many of these changes are not captured in the final cost estimates. The failure to capture the changes, especially since they tend to involve cost savings, almost guarantees that the agency's estimate will overstate the true costs of the rule.

Estimating Maxima Rather than Means

There is a tendency, sometimes inadvertent and sometimes deliberate, for a regulatory agency to estimate the maximum cost rather than the mean. Inadvertent estimation of the maximum cost may result from the agency's use of out-of-date information on installed pollution control equipment. If such an instance, the agency data may not reflect the most recent pollution control investments, and therefore the quantity of emissions required to meet a particular goal might be overestimated.

Interestingly, the regulated industry is the source, directly or indirectly, of most of the data used to support cost estimates as well as the possible improvements in firm performance that might be called forth by new rules. Sometimes, as in the recently concluded multimedia rulemaking for the pulp and paper industry, the EPA seeks the cooperation of the main trade association, which may, in turn, solicit cost data from its members or serve as a conduit for an EPA-designed questionnaire.[27] The industry also has opportunities during the regulatory process to produce cost estimates even when not specifically requested by the regulators. For example, trade associations sometimes hire contractors to conduct their own cost studeis, as when the auto industry retained Sierra Research to estimate the cost of meeting the low-emitting vehicle (LEV) and ultra low-emitting vehicle (ULEV) standards. Regulators may be skepticial of these estimates, but the estimates still must be addressed in the rulemaking process and some explanation given for major disparities in estimates. The mere existence of such studies may exert upward pressure on regulators' cost estimates.

While the industry may be motivated by strategic considerations, overestimates of costs may also result from firms' unwillingness to devote resources to figuring out the best way to comply with a proposal that may or may not end up as a final rule. Asked "what will it cost?", a firm's analyst may respond with the cost of an "off-the-shelf" compliance technology. Further study may reveal that compliance cost can be cut substantially through an innovative process change. In this case, firms are not necessarily employing strategic behavior, but just choosing not to expend resources in advance of final regulation in determining how compliance could be achieved at minimum cost.

There may also be occasions when the regulator will quite deliberately estimate a maximum cost, for example, if cost underestimation risks embarrassment, if compliance costs are expected to be small, or if legal challenge seems likely. OTA found that "substantial evidence" scrutiny by the courts drove OSHA to overestimate costs. Similarly, in EPA's Effluent Guidelines Division, it is standard practice to provide an upper bound for a compliance cost estimate.[28]

In addition, a good deal of health and safety regulation is technology based, which means that the regulator identifies an emission-reducing technology and then writes the regulation so that the identified technology can meet it. The language used in industrial pollution control statutes makes clear the importance of feasibility: "Best Practicable Technology," "Best Available Technology Economically Achievable," "Best Conventional Technology" (Clean Water Act), "Best Available Control Technology," "Lowest Achievable Emission Rate" (Clean Air Act). Note the emphasis on technology that is available and achievable, words that impose a responsibility on the EPA to identify a technology in use that can meet the standard the agency wishes to impose.

[27] In addition, it is noteworthy that EPA cost studies are frequently done by outside contractors, who hire industry experts (often ex-employees of the industry) to make estimates. If the agency relies on cost and compliance information from the industry, then agency cost estimates might be subject to the same biases as industry estimates.

[28] Personal communication, William Anderson and William Wheeler, Effluent Guidelines Division, June 30, 1988.

Regulated firms are free to meet the standard by any method, and presumably they will use the identified technology only if it is less expensive than the alternatives.

Asymmetric Correction of Estimation Errors

Some have argued that regulatory agencies may "understate costs . . . because . . . their self-interest lies in regulation" [OMB, 1998; see also Hahn, 1996]. In fact it is difficult to assess the extent to which bureaucrats engage in agency-aggrandizing behavior. Apart from the possible tendency to overstate baselines (and thus the nature of the problem subject to regulation), data collected for this analysis do not support the notion of systematic underestimation of regulatory costs. However, any tendency to underestimate cost may be constrained by countervailing pressure from groups affected by proposed regulations.

Estimation of costs is full of uncertainties in the best of circumstances, and it is understandable that such estimates would be subject to large errors. These estimation errors come not only from an understandable failure to anticipate technological change, but from equally understandable errors in characterizing the universe of firms or agents likely to be affected by the regulation, as well as the cost and effectiveness of the compliance technologies employed. In the absence of bias, of course, costs would be underestimated as often as they were overestimated. Internal and external pressures, as well as new information, can cause the regulation itself to change after the cost estimate is prepared. However, the cost estimate can be revised if errors are pointed out.

Even if agency self-interest leads to underestimation of costs, at least gross underestimates are likely to be brought to the regulator's attention by the regulated community, particularly if it is well organized. For example, the inspection and maintenance program is the most dramatic example of the underestimate of unit costs by EPA. In that case, most of the costs of the program were borne by motorists, a relatively unorganized interest group.[29]

CONCLUSIONS

The debate over whether the costs of environmental regulatory programs are under- or over-estimated is really two debates—one about omission and the other about accuracy. Many observers argue that important cost elements are left out of regulatory estimates, and if they were included they might swamp the costs that are now included. These omissions include indirect and often difficult-to-measure categories such as diverted management attention, innovations that weren't made because of the time and resources devoted to complying with environmental regulations, and the general equilibrium adjustments that ripple through the economy when resources are diverted from one use to another. It is thus no surprise that those who argue that important costs are ignored in regulatory descisionmaking tend also to be those who point to the costs of environmental regulation in general, rather than to the direct costs of individual regulations.

The present article principally addresses the issue of accuracy: whether the cost elements estimated during the regulatory process contain systematic errors, and if so, what the implications are for regulatory policy. Unlike concerns about the completeness of the cost estimates, this issue is amenable to empirical testing. To resolve it, some experts call for more intensive scrutiny of the procedures used by

[29] Service station owners were also affected in some states, although the predicted gains (or losses) were both uncertain and small. The RIA actually showed small net gains to service owners as the loses in inspection fees were more than offset by increased repair business.

regulatory agencies to collect information, choose rulemaking alternatives, and evaluate costs [for example, Hahn, 1996]. Scrutiny of rulemaking procedures and the documents produced to support them is certainly important but it is not sufficient to determine whether RIAs accurately predict the realized direct costs of regulations. What is needed, in addition, is a systematic comparison of *ex ante* cost estimates generated by RIAs to the *ex post* assessments of the same rules.

This review of more than two dozen *ex ante/ex post* comparisons indicate that *ex ante* estimates of total cost have tended to exceed actuals, which is true of 14 of the 28 rules in the data set, while for only 3 were the *ex ante* estimates too low. Since the overestimates occur more frequently in the larger rules, the dollar-weighted predominance of overestimates is even higher. For federal rules the overestimation of total costs is often due to errors in the quantity of required emission reductions which, in turn, is driven by both baseline and compliance issues. In these cases, the *ex ante* overestimate of total costs implies an overestimate of total benefits (pollution reductions). At least for EPA and OSHA rules, overestimation of per unit abatement costs occurs about as often as underestimation. For those rules that employ economic incentive mechanisms, overestimation of per unit costs seems to be the norm.

In numerous case studies actual compliance costs are lower than predicted because of unanticipated use of new technology. One might ask whether there are particular features of rules that encourage innovation, and here the importance of flexibility is noteworthy. The more flexibility regarding when, how, where, and by whom emission reductions are to be made, the more difficult it is for regulators or anyone else to anticipate the technical responses and, correspondingly, the costs of regulation. Not surprisingly, the rules involving economic incentives contain mostly pleasant surprises on the cost side.

The tendency to mis-estimate compliance costs also arises from the pressures of regulatory politics and from certain practices of cost estimation and rulemaking. To ensure that the public has the EPA's "best estimate" of the regulation, some simple changes to cost estimation procedures could be adopted. Since a number of statutes appear to encourage the development of cost estimates that reflect a maximum rather than a mean, regulatory agencies could issue a "best estimate" along with the statutorily preferred cost estimate. Likewise, they could ensure that any changes in the rule made subsequent to publication of the cost estimate would be manifest in a revised cost estimate.[30]

Some may see these findings as undermining the value of rigorous *ex ante* analysis of the costs of regulation. Such an interpretation ignores the constructive role that cost analysis can serve in the rulemaking process. Cost estimation helps regulators conduct a disciplined process of thinking through the full ramifications of a rule. Findings of high cost can also motivate a search for regulatory options that lower costs, often at little or no reduction in benefits. In fact, it should come as no surprise that *ex ante* estimates can be useful in the rulemaking process without necessarily providing good predictions of costs *ex post*. After all, the cost estimate is usually an input to the rulemaking decision, not an output intended to be judged on its own merits.

Just as the present results point to the need for greater care in estimating baselines and compliance rates—the so-called quantity issues—additional insights into the biases of regulatory cost estimates could be gained by expanding the universe of credible *ex post* studies. Further study of the rulemaking and cost estimation processes would also help sort out the relative significance of these and other possible explanations of cost mis-estimation. Indeed, discovering whether or how to adjust *ex ante* estimates provides the strongest possible justification for more credible *ex post* studies—a research activity that merits greater emphasis.

[30] Currently, revised cost estimates are prepared for some rules but not others.

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WINSTON HARRINGTON and RICHARD D. MORGENSTERN are Senior Fellows and PETER NELSON is a Research Assistant at Resources for the Future, Washington, D.C.

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Appendix. Summary of case studies.

Agency	Regulation	Date of *ex ante* study	Source for *ex post* comparison	Quantity reduction	Unit cost of pollution reduction	Total cost	Comments
EPA	CDEC (lettuce)	1979	Gianessi [1999]	↔	↓	↓	EPA predicted that hand weeding would replace pesticide. However, as a result of the increased cost of hand weeding, 5000 acres were withdrawn for lettuce production.
EPA	Mancozeb	1979	Gianessi [1999]	↔	↑	↑	EPA and USDA assumed no available substitutes and large yield losses. After the ban, EPA issued a new registration for a substitute, and yield losses were much smaller than anticipated.
EPA	Nitrofen (broccoli)	1983	Gianessi [1999]	↔	↑	↑	Farmers discovered new techniques for controlling weeds in response to the ban.
EPA	Leaded gas*	1985	Nichols [1997]	↓	↔	↔	Costs of the rule were never reestimated. The more rapid-than-expected phase-out of leaded gasoline suggests that costs may have been lower than expected.
EPA	Dinoseb	1986	Gianessi [1999]	↔	↓	↑	After dinoseb was banned, EPA granted emergency exemptions to peanut farmers, allowing them to use paraquat. Paraquat was more cost effective than dinoseb, so the result was a net savings.
EPA	CFCs*	1986	Hammitt [1997]	↔	↑	↑	Subsequent regulation backed by treaty and legislation expanded the reductions beyond those initially forecast.
EPA	CFCs*	1988	Hammitt [1997]	↔	↔	↔	Estimates released after the signing of the Montreal Protocol contained lower forecast costs—one scenario was approximately correct; the other was an underestimate.

* Economic incentives in regulation.
↔ Accurate
↑ Overestimated
↓ Underestimated

EPA	Aldicarb	1988	Gianessi and Phillips [1998]	↑	↓	↓	Although EPA accurately forecast farmers' behavior following the ban, the substitutes used were far less effective than predicted. EPA reinstated aldicarb's use in some locations.
EPA	SO_2 phase I*	1990	Smith, Platt, and Ellerman [1998] Carlson et al. [1998]	↔	↑	↔	The effect of rail deregulation allowing more low-sulfur coal to move east was not adequately accounted for. Realized emissions have been lower than expected. However, the predicted total costs of phase I were correct because of the high capital costs of extensive phase I scrubbing and contributions to the bank.
EPA	SO_2 phase II*	1990	White [1997] Carlson et al. [1998]	↑	↑	↑	Recent modeled estimates indicate that costs for phase II were overstated. Emissions in phase II are expected to be higher than initially forecast because of phase I banking.
EPA	NO_x (Clean Air Act)	1990	Burtraw [1998b]	↔	↔	↔	The program did not involve a fixed emissions cap; instead it involved a reduction in the emission rate. The agency overestimated growth in the demand for electricity and therefore overestimated baseline emissions. Although costs were about accurate, there was a resulting modest (less than 25 percent) overstatement of total emission reductions.
EPA	Inspection and maintenance	1992	Harrington, McConnell, and Ando [1999]	↑	↓	?	Vehicle repair was not as effective as anticipated in acheiving emissions reductions; therefore realized reductions were lower than expected. *Ex ante* study envisioned nationwide program applying to 56 million vehicles. So far the program has been implemented only in four states.

* Economic incentives in regulation.
↔ Accurate
↑ Overestimated
↓ Underestimated

Appendix. Summary of Case Studies (cont'd)

Agency	Regulation	Date of *ex ante* study	Source for *ex post* comparison	Quantity reduction	Unit cost of pollution reduction	Total cost	Comments
EPA	Reformulated gas	1993	Anderson and Rykowski [1998]	↑	↔	↑	EPA's predicted cost differentials appear to be reasonably accurate for the largest markets. Public concern about health effects of MTBE led to some states dropping out of the program.
EPA	Propargite (strawberries)	1994	Gianessi [1999]	↔	↔	↑	*Ex ante* assumed no available substitutes and forecast costs of $12 million/year. After the ban, farmers were granted an emergency exemption for a substitute and costs ended up at less than $500,000/year.
OSHA	Asbestos	1972	Priest, Bengali (1981), cited in Mendeloff [1988]	↑	↔	↑	*Ex ante* forecast overestimated initial exposure levels.
OSHA	Vinyl chloride	1974	OTA [1995]	↔	↑	↑	Estimates of direct costs are 20 to 25 percent of those predicted. Price increases are observed, but even if these costs are included, the *ex ante* was an overestimate.
OSHA	Coke ovens (OSHA)	1975	Arthur Andeson & Co. (1979), cited in Mendeloff [1988]	↑	↓	↑	Total expenditures were far below those predicted by OSHA; this was in large part due to incomplete compliance.
OSHA	Cotton dust	1976	Viscusi [1992] OTA [1995]	↑	↑	↑	The *ex ante* estimate overstated the number of workers affected by the regulation. In addition, after promulgation the textile industry modernized in response to foreign competition, enabling dust control to be acheived at a lower cost.

* Economic incentives in regulation.
↔ Accurate
↑ Overestimated
↓ Underestimated

OSHA	Occupational lead	1978	OTA [1995]	↑	↓	↑	Although costs were lower than OSHA predicted, exposure reductions were acheived through hygiene and worker protected gear, as opposed to the engineering approaches the agency envisioned. As of 1994, lead exposure levels still exceeded permissible exposure levels of the regulation.
OSHA	Ethylene oxide	1984	OTA [1995]	↔	↔	↔	Cost was slightly higher due in part to overcompliance motivated by long-term exposure and liability concerns.
OSHA	Formaldehyde	1987	OTA [1995],	↔	↑	↑	The *ex ante* estimate overlooked an important substitute.
OSHA	Powered platforms	1989	OTA [1995]	↑	↔	↓	The rule was supposedto generate cost savings. An economic downturn in the construction industry prevented the total projected savings from being realized.
CARB	LEV	1990, 1994	Cackette [1998]	?	↑	?	*Ex post* survey revealed slight overestimate.
CARB	Reformulated gas (CA)	1991, 1996	Cackette [1998]	?	↑	?	Per gallon costs were about half those estimated by CARB. Ambient monitoring detected significant improvements in air quality.
SCAQMD	RECLAIM (NO_x)*	1993	SCAQMD [1998]	↓	↑	↑	Price of NO_x trading credits were significantly lower than forecast, as were emissions.
SCAQMD	RECLAIM (SO_x)*	1993	SCAQMD [1998]	↔	↑	↑	Price of SO_x credits trading slightly lower than forecast.
Singapore	Singapore congestion licensing system*	1975	Hau [1992]	↓	↑	?	Licensing program attempted to reduce morning congestion in central business district. Program was expected to reduce traffic 25 to 30 percent. Traffic dropped between one-third and one-half. The program exacerbated congection in other areas of the city.

* Economic incentives in regulation.
↔ Accurate
↑ Overestimated
↓ Underestimated

Appendix. Summary of Case Studies (cont'd)

Agency	Regulation	Date of *ex ante* study	Source for *ex post* comparison	Quantity reduction	Unit cost of pollution reduction	Total cost	Comments
Bergen, Norway*	Bergen toll ring*	1986	Hau [1992]	↓	↑	?	Traffic was projected to fall by 3 percent; fell 6 to 7 percent in the first year.
Ontario	Ontario water	1986	OMOE [1996]	↔	↔	↔	Rule covered nine major industrial sectors. Although the total cost prediction was accurate, the estimates for individual sectors varied widely.

* Economic incentives in regulation.
↔ Accurate
↑ Overestimated
↓ Underestimated

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Broker Rebates and Investor Sophistication

Mor Haziza[a]
and
Anver Kalay[b*]

Abstract

Following a ruling of the Israeli Securities Authority, portfolio managers had to obtain their clients' consent, in writing; so that they can continue to receive a fraction of the transaction costs their clients pay the broker executing the trades. One would expect an overwhelming opposition to the kickback as consenting investors are exposed to avoidable losses due to (moral hazard) access trading. Yet the opposite is found – about 89% of the investors in our sample allowed their manager to receive a kickback. This is quite remarkable considering that not responding is taken as a prohibition. Indeed, the more sophisticated investors tend to disagree. We find that portfolios of consenting investors underperform in the year following their decision. Also, the empirical evidence indicates that consenting is not a reward on past success.

[a]Mor Haziza is a PhD student at Tel Aviv University, and [b]Avner Kalay is Francis A. Madsen Professor of Finance at the University of Utah and Maurice and Gertrude Deutch Chair professor at Tel Aviv University. We wish to thank Yakov Amihud, Jan De Dreu, Dan Galai, Matti Keloharju, Gerald Lins, David Nanigian, Aharon Ofer, Marco Ottaviani, Orly Sade, Kelsey Wie, and participants in the finance seminar at the Hebrew University, The University of Utah, Tel Aviv University, participants at the 2014 European Finance Association conference, 2014 Behavioural Finance Working Group Conference, and Rothschild Caesarea Conference for many helpful comments. Mor Haziza thanks the Rothschild Caesarea Center for Capital Markets and Risk Management for their financial support.

*Corresponding author: Tel: 972 (0) 3640 6298, 972 (0) 54 726 0326
E-mail address: kalay1@post.tau.ac.il (A. Kalay), morhazi1@mail.tau.ac.il (M. Haziza).

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Abstract

Following a ruling of the Israeli Securities Authority, portfolio managers had to obtain their clients' consent, in writing; so that they can continue to receive a fraction of the transaction costs their clients pay the broker executing the trades. One would expect an overwhelming opposition to the kickback as consenting investors are exposed to avoidable losses due to (moral hazard) access trading. Yet the opposite is found – about 89% of the investors in our sample allowed their manager to receive a kickback. This is quite remarkable considering that not responding is taken as a prohibition. Indeed, the more sophisticated investors tend to disagree. We find that portfolios of consenting investors underperform in the year following their decision. Also, the empirical evidence indicates that consenting is not a reward on past success.

I. ***Introduction***

In soft-dollar arrangements intermediaries are compensated by receiving a "kickback", i.e., cash / non-cash rebate, for referral. Such arrangements include fund managers who direct their clients' transactions to brokers for a fee and/or payments by fund managers to financial advisers for customers sent their way.

The increased role of intermediary and soft-dollars arrangements in the money management industry and the related potential moral hazard problems attracted recent political attention. In a recent Senate Hearing (6.16.2014) on fairness of stock trading, the president of the New York Stock Exchange, Thomas W. Farley, said that a system called maker-taker payments, in which exchanges pay rebates to brokerage firms for orders, created "inherent" conflicts. Representative Carl Levin, a Democrat from Michigan, agrees. He asserts that "the current structure gives brokers an incentive to place their own interests ahead of the interests of their clients," He adds, "The party making the decision should only be influenced by the best interest of the investor".

Of concern are the effects of rebate- arrangements on fund performance and investors welfare. In a recent paper, Stoughton, Wu, and Zechner (2011) show that payment of kickbacks by fund managers to financial advisers, in an economy with unsophisticated investors, serves as an aggressive marketing tool allowing for higher management fees and consequently lower net returns. Similarly, Inderst and Ottiviani (2012) show, that payment by product providers to intermediaries, advising sophisticated customers regarding the suitability of these products, can

increase welfare. Yet, such arrangements turn into a tool of exploitation when offered to naïve investors.

The direct empirical evidence on the effects of soft dollar arrangements on investors' welfare is inconclusive[1]. In a closely related study Conrad, Johnson and Wahal (2001) examine the cost of orders institutional investors sent to soft dollar brokers compared with the cost of orders sent to other brokers. The estimated incremental cost of orders sent to soft dollar brokers is 29 basis points for buys and 24 basis points for sells.

Yet, the documented incremental cost is not necessarily evidence of sub optimality. It is possible that allowing soft dollar transactions improves the fund managers' compensation allowing them to lower costs to their clients. Horan and Johnsen (2008) suggest that by paying for the managers' research bill the broker posts a quality-assuring performance bond that efficiently subsidizes the managers' research. They find premium commissions to be positively related to fund performance suggesting that soft dollars potentially benefit investors. Our paper adds to the literature by documenting that kickbacks reduce performance hence are costly to investors.

This paper contains the result of a natural experiment assessing the effects of kickbacks on investors' welfare. On March 2009, the Israeli Securities Authority issued a ruling requiring portfolio managers to obtain their clients' consent in writing to receive a fraction of the

1 Some indirect evidence is consistent with Stoughton Wu and Zechner (2011) prediction. Edelen, Evans, and Kadlec (2008) find that actively managed funds improve fund distributions by compensating their brokers with abnormally high commissions and this leads to lower fund returns. Bergstresser, Chalmers, and Tufano (2009) find that risk-adjusted returns are lower for funds offered through a brokerage channel as compared to those offered directly to investors.

transaction costs their clients pay the broker executing the trades.[2] One would expect an overwhelming opposition to the kickback as consenting investors are exposed to avoidable losses due to (moral hazard) access trading. Yet the opposite is found – about 89% of the investors of a large portfolio manager [3] fill out the form allowing the manager to receive the kickback. This is quite remarkable considering that the default (not responding) is a prohibition.

We seek to better understand this surprising result. The paper examines the differences between consenting and disapproving investors. The focus of the research is on the potential differential responses of sophisticated and unsophisticated investors. In this study three different measures of investor sophistication are used. The first measure is based on investors' professional occupations. Individuals with professional occupations that imply higher levels of education are seen as sophisticated and non-professionals as unsophisticated.[4] The second measure assumes that firms are sophisticated investors and individual investors are unsophisticated. Finally, the third measure is based on investor's income – higher income is associated with sophistication.

The potential differential responses of the two groups are studied controlling for gender, ownership composition, age, portfolio size, past portfolio performance, and maximum ceiling on the exposure to equity, among other factors.

The evidence indicates that more sophisticated investors tend to prohibit kickbacks. This tendency is found for the three proxies of sophistication employed. In addition, analysis of

2 This income is in addition to the traditional management fee charged by the portfolio manager.
3 Our proprietary dataset includes all portfolios managed by a large Israeli financial institution as of June 2010 - a total of 1260 portfolios.
[4] Dhar and Zhu (2006) use Professional Occupations as a Proxy for investors' sophistication.

portfolio performance following the decision reveals that, other things equal, consenting investors earn significantly lower returns than those opposing the kickbacks. In addition, consenting investors pay higher management fees.

I.1 Related Literature – Investor Sophistication

The effect of the level of investors' sophistication on her behavior and consequently performance is a topic of a growing body of literature. Sophisticated investors are found to be more likely to engage in private information production and become informed (Indjejikian 1991, Bushman et al. 1996, Fischer and Verrecchia 1999). As a result, sophisticated investors concentrate their trading in stocks with higher levels of information asymmetry and less liquidity. Moreover, unsophisticated investors concentrate in firms with increased levels of press dissemination (Kalay 2010). Sophisticated investors also show less mispricing of cash flows than unsophisticated investors (Barone and Magilke 2009) and incorporate the implications of current earnings components into future earnings in a more efficient manner (Kao 2007). In addition, more sophisticated traders are found to be less likely to examine information using narrow framing (Liu, Wang, Zhao 2010). In a lab experiment Victoravich (2010) found bigger valuation change in response to "earnings announcement" by unsophisticated investors.

Allee, Bhattacharya, Black and Christensen (2007) found correlation between the location of the earnings pro-forma figure in the report with the valuation of less sophisticated investors. Dhar and Zhu (2006) found that individuals employed in professional occupations (in their paper classified as sophisticated) exhibit less disposition effect (i.e. investor's tendency to hold on to their losers and sell their winners).

Finally, IQ is found to be a significant driver of trading behavior, performance and trading costs (Grinblatt et. al, 2011). Using data on two decades of IQ scores from inductees in Finland's mandatory military service and eight years of trading data this research shows that high-IQ investors are less susceptible to the disposition effect, more rational about minimizing taxes and more likely to supply liquidity in response to large movements in stock prices. In addition, the results show differences in portfolio performance of 2.2%-4.9% per year between low and high IQ investors.

I.2 The plan of the paper

Section II that follows contains a detailed description of the case studied; the testable hypotheses are developed in Section III; section IV describes the database and the methodology employed; The results are given in Section V; and finally, section VI summarize the main findings and discusses the implications.

II. ***Case Description***

Fund managers operating in Israel typically received a portion of the transaction costs paid by their clients. Obviously, this fee rebate arrangement may induce the fund manager to trade more intensely for his clients thereby generating more revenues. The excess trading is most likely inconsistent with the best interest of these clients.

On March 2009 the Israeli securities authority issued a ruling forcing portfolio management companies to get the clients consent in writing so that they can receive a fraction of the transaction fees paid to the broker executing the trades.

In this paper we use a unique dataset provided to us by one of Israel's largest financial institutions, hereafter referred to as 'Company XYZ'. XYZ provides personal portfolio management for private customers and firms. The proprietary data includes the response of the clients of firm XYZ to the company's request to receive a fraction of their transaction costs. Figure 1 exhibits a letter sent by XYZ to all existing clients with actively managed portfolios. The letter is a request to receive part of the transaction fees associated with the managed portfolio. It details a list of different assets (stocks, bonds and so on), their corresponding Buy / Sell fee the broker charges from the client and the percentage XYZ would be entitled to receive from the broker.

It is assumed that the total transaction costs paid by the clients are given. If the clients prohibit kickbacks the broker will receive higher commissions from their trades (and the portfolio manager will receive none). The decision is likely to affect the trading strategy of XYZ and in particular the volume of trade.

III. The investor's dilemma and hypotheses development

Given this unique situation the investor needs to make a decision. Should she grant her broker the privilege to enjoy this extra income? Or maybe she should disagree even though the transaction fee per trade she is paying is not affected by this decision?

III.1 Fee rebates as a motivational device

It could be argued that the investor entrusts her assets and savings in the hands of XYZ because of their specific skills. In return for this professional's services XYZ receives compensation in

the form of management fees charged monthly from the investor's account. However, approving fee rebates can be used by the investor as a motivational tool. The investor may perceive this as an opportunity to grant XYZ higher compensation for its services motivating it to devote more attention to the portfolio and consequently increase her return.

Moreover, since the fees per transaction are given, the investor might view denying the fund manager a portion of the transaction cost as petty or as being ungrateful. Prohibiting the receipt of funds from the broker seems inconsistent with the investors' choice of the fund manager that is based on trust. Consequently, the investor would agree to fee rebates and in return would expect higher portfolio return.

III.2 Fee rebates and portfolio turnover

Allowing XYZ to receive part of the transaction fees motivates the company to increase the volume of trade of its consenting clients. The increase in the volume of trade can involve frequent buying and selling of assets not necessarily in the client's best interest. If the investor does not associate more attention by the fund manager with better return, she should not agree to fee rebates thereby avoiding needless transactions and improving her net return. In other words, excess trading would result in underperformance and reduction of investors' welfare.

This paper conjectures that agreeing to fee rebates will lead to excess trading and cause consenting investors to underperform relative to those who objected. In conclusion, our hypotheses are as follows:

III.3 Hypotheses

H1: Portfolios of consenting investors will underperform relative to portfolios of other clients.

H2: Sophisticated investors are less likely to agree to fee rebates than other investors.

IV. ***Data, descriptive statistics, and methodology***

The dataset includes all the relevant portfolios company XYZ managed as of June 2010 - a total of 1260 portfolios. For all portfolios we have the following data: A dummy variable for investor consent to fee rebates, one for opposing investors and zero otherwise. This is our main dependent variable. Of the 1260 investors asked, 1118 investors (88.7%) gave their consent. Only 142 of them (11.3%) opposed.

For each portfolio owner we have data on gender, date of birth and whether or not it's a firm. We distinguish between five categories of investors: male, female, couple, firm, and other. The category "Couple" implies a portfolio belonging to two individuals (male and female). The category "other" implies that the portfolio is owned by two males (females) or more and other possible combinations.

In the sample, 364 (29%) portfolios are owned by males, 159 (12.7%) are owned by females, 587 (46.8%) are owned by couples, 62 (4.9%) are owned by firms, and 81 (6.5%) portfolios are owned by other combinations.[5] Table 1 summarizes the distribution of investors' characteristics (detailed above) for the sample of consenting investors and for the sample of those who objected.

5 The sample lacks information on the ownership of 7 portfolios.

Our sample also includes data on the investors' age for each of the portfolios' owners. For firms, we use the age of their respective legal representatives. We find the mean age of a portfolio owner to be 59.3 with S.D. of 11.27. The data also includes portfolio size (the shekel amount) on June 2009, portfolio size on December 2009 and on June 2010. Table 1 contains descriptive statistics of these variables.

Table 2 describes the monthly management fees (as a percentage of the portfolio) for portfolios in our sample, and the time period during which the portfolio was managed by XYZ. Our data, summarized in Table 2, also includes the maximum percentage equity holdings allowed by the investor which is our measure of the portfolio risk.

Out of the 1260 portfolios we have additional information for 498 portfolios: the investor's declared occupation and Income level. Investor occupation is used as a proxy for investor sophistication. Investors with professional occupations (occupations that require a high level of education) are classified as sophisticated investors and investors with non-professional occupations are regarded as unsophisticated. Some of the declared occupations were impossible to classify (mostly retired individuals) hence regarded as unknown. These observations are excluded from the following analysis. Out of the 498 cases, 162 (32.5%) are sophisticated, 165 (33.1%) are unsophisticated and 171 (34.3%) are unknown. The sample of classified investors includes 327. The distribution between the three types for all cases is displayed in Table 4. The income categories in NIS (per month) are as follows: 0-5K, 5K-10K, 10K-20K, 20K-40K, 40K

and above and finally 'refuse to report'. The relative frequency of the various income categories is presented in Table 5.

IV.1 Methodology

We start our empirical investigation by testing H1. Recall that according to this hypothesis the payments of kickbacks to the fund manager induces her to trade more intensely thereby increasing her effective management fees without adding any incremental value to the investor's portfolio. Clearly investors shouldn't agree to this arrangement.

We analyze the portfolio performance of investors in our sample on 2008, the first half of 2009 and on 2010. Specifically, we regress portfolio returns on fee rebate dummy, controlling for portfolio risk level (the investor exposure to equity), portfolio management fees and portfolio size[6]. If H1 is correct than on 2010, the year following the decision, we should find performance differences between those who didn't agree and those who consented. We do not expect differences between the two groups on 2008 and 2009. For 2010 the regression specification is as follows:

$$Return\ 2010 = \alpha + \beta 1\ fee\ rebate + \beta 2\ exposure\ to\ equity + \beta 3\ management\ fees + \beta 4\ portfolio\ size + u \quad (1)$$

6 Portfolio size is available on June 2009, December 2009 and June 2010. Portfolio size on December 2009 is used in the analysis (regression) of 2010 returns thereby avoiding issues of reverse causality. For the same reason the estimate of portfolio size is not used when analyzing the years 2008 and 2009.

We then seek to study the effect of investor sophistication as well as other variables on the decision to agree to fee rebate. To test H2 (sophisticated investors will tend to disagree) we regress fee rebates on occupation based proxy of sophistication and the other explanatory variables as described above. We will analyze the following regression specification using Linear Probability Model and Probit estimation.

$$Fee\ rebate = \alpha + \beta 1\ sophistication + \beta 2\ portfolio\ size + \beta 3\ exposure\ to\ equity + \beta 4\ portfolio\ age + \beta 5\ return2008 + \beta 6\ returnQ1\_2009 + \beta 7\ returnQ2\_2009 + \beta 8\ management\ fees + \beta 9\ Average\ investor\ age + u \quad (2)$$

We have data on occupation for only 498 investors. Of them we can clearly identify the occupation with level of education for 327 investors. Thus we run the above regression for this reduced sample[7]. This motivated additional test where we use alternative measure for investors' sophistication – firm (sophisticated) or individual (unsophisticated). We have data on investor type and all the other explanatory variables for most of the 1260 observations. Five dummy variables corresponding to the five possible client types: male, female, couple, firm and other where created. For example, *client firm* takes the value of 1 if the portfolio belongs to a firm and 0 otherwise. Using these variables we run the following regression on a large sample of portfolios, 1178 observations.

7 The sample size is further reduced to 321 as we lost 6 observations due to missing data.

$$Fee\ rebate = \alpha + \beta 1\ Average\ investor\ age + \beta 2\ portfolio\ size + \beta 3\ exposure\ to\ equity + \beta 4\ portfolio\ age + \beta 5 management\ fees + \beta 6\ client\ male + \beta 7\ client\ female + \beta 8\ client\ firm + \beta 9\ client\ couple + u \quad (3)$$

The above regression does not include investor sophistication under the definition we have used so far, professional occupations. However, it also separates between sophisticated and unsophisticated investors in a similar sense through the use of the client type dummy variables.

In the case of a firm, usually there is more than one individual with authority to communicate with the broker and take portfolio decisions. These individuals are the senior management of the firm including the chairman, board members, CEO's and CFO's. It is, therefore, reasonable to assume that these individuals are highly educated professionals with some prior experience in the financial markets. Hence it is assumed that firms are more sophisticated investors.

It is important to emphasize that for all the 498 cases for which we have data on investor occupation the portfolios belong to private clients and not firms. Consequently, an investor sophistication effect found using professional occupations is completely different and independent of an investor sophistication effect found using firms as a proxy for sophistication. In other words, the former definition is differentiating within private investors only and the latter is differentiating between private investors and firms.

V. Results

V.1 Fee-rebates consent and portfolio performance

The results are consistent with hypothesis H1 – i.e., receiving fraction of the transaction costs paid as a kickback induces the portfolio manager to trade excessively reducing the net returns of the investor. Table 6 Panel A describes the portfolio performance for the year following the investors' decision – i.e., 2010 returns. As shown in the table, consenting to fee rebate has a significant negative effect on future portfolio returns (other things equal).

As detailed in table 6 Panel A, consistent with economic theory higher management fees (other thing equal) has a significant negative effect on portfolio performance. Also consistent with the theory, higher returns are documented for portfolios with a larger exposure to equity (other things constant).

To investigate whether or not it is the consent to fee rebate that generated the difference in performance between consenting and other investors, we study their portfolio performance in the period preceding the decision. Panel B of Table 6 describes the results of the experiment for the first half of 2009 and Panel C of the Table details the results for the year 2008. As expected, we do not observe differences in the performance of the portfolios prior to the investors' decision. This result is consistent with the hypothesis that the fund manager trade more intensely in consenting investors' portfolios relative to other clients only after the investors' decision. Consistent with economic theory, we still observe the expected effect of exposure to equity on observed returns. Consistent with economic theory a positive coefficient on exposure to equity is observed in the first half of 2009 and 2010 – years of market wide stock price increases and a

negative coefficient is found in 2008 where prices dropped. This finding gives support to our conjecture that the ceiling on exposure to equity proxy for the portfolio risk.

V.2 Occupation based sophistication effects

We turn now to test hypothesis II (H2) - Sophisticated investors are less likely to agree to fee rebates than unsophisticated investors.

The empirical results documented are consistent with this hypothesis. In the following regression consent to fee rebate dummy (0 for consenting and 1 otherwise) is the dependent variable. The explanatory variables are proxy for investor sophistication, the portfolio management fee, portfolio size, exposure to equity, portfolio age, 2008 return, Q1 2009 and Q2 2009 return and investor average age. Panel A of Table 7 describes the results for Probit regression technique and Panel B details the results for LPM estimation technique. The two methods yield the same qualitative results. For both techniques, investor sophistication has a significant negative effect on investor's tendency to agree to fee rebates. In other words, sophisticated investors were more likely to prohibit fee rebates than unsophisticated investors. Interestingly, a significant effect for investors' average age is observed. Younger investors were more likely to prohibit fee rebates than older investors. This result is consistent with the literature that claims that younger investors have superior financial literacy compared with older ones (see Lusardi, Mitchell and Curto 2009, 2012). Management fees are documented to have a marginally significant[8] negative effect on the

[8] In the regressions that follow a larger sample is utilized and the negative effect of management fees on the probability of consenting turns highly significant.

probability of consenting to fee rebate. This makes sense as one would expect a more sophisticated investor to better negotiate her management fees.

The empirical evidence indicates that past performance has no effect on investors' tendency to consent to fee rebate. The results indicate that investors didn't tend to "reward" the portfolio manager with fee rebates based on previous performance. Interestingly, portfolio age, the time period during which the fund manager managed the portfolio was also not significant. This implies that investors' faithfulness to the fund manager didn't play a role in the investor fee rebate decision. Exposure to equity did not change the investor probability to agree as well.

V.3 Firm – individual based sophistication effects

Decision makers in firms are likely to be educated professionals and thus by our definition sophisticated. According to H2 firms will be more likely to prohibit fee rebates than other investors.

To test this hypothesis we replaced the education based sophistication proxy with investor type dummy variables for the groups: male, female, couple and firm. The use of the new sophistication proxy substantially increases sample size from 321 to 1178 portfolios.

Table 8 Panel A describes the results for Probit regression technique and Panel B details the results for LPM estimation technique. The results are consistent with the hypothesis. Using LMP estimation technique firms are found to be more likely to prohibit fee rebates. Similar results are found when a Probit regression technique is used.

The effects of the other explanatory variables remain unchanged. Moreover, using the larger sample size increased their statistical significance. Again, we find a statistically significant effect of investor age. Younger investors are more likely to prohibit fee rebates. As mentioned in Footnote 7 – using the larger sample we find a highly significant effect of management fees on the decision to consent to fee rebate. Portfolio owners who pay lower management fees were also more likely to prohibit fee rebates. More sophisticated investors tend to bargain for lower fees and protect themselves by prohibiting fee rebates. As in the previous analysis none of the other variables including exposure to equity and portfolio age were significant[9].

Note that these results are obtained after controlling for portfolio management fees, which are lower for firms. Firms in the sample typically have larger portfolios then other investors' and lower fees.

V.4 Robustness Checks

Random Assignments

Estimating sophistication based on investors' occupation relies on the implied level of education and skill needed to perform the job. This classification is somewhat subjective and involves judgment calls. In fact the investors describe their occupation using their own definitions when filling the forms. It seems that misclassification is almost unavoidable when using this data. However, we would like to verify that our results are not based on 'lucky' assignment. We create a *Random sophistication* variable with random occupation assignment to the entire 498

[9] Adding the 2008, Q12009 and Q2009 past returns to this analysis (presented in table 7) does not change the results. The empirical evidence indicates that past results do not affect the decision to consent.

individuals for which we have data on the occupation. We also run this regression with random sophistication/occupation for the 321 observations used above. Formally,

$$Fee\ rebate = \alpha + \beta 1\ Random\ Occupations + \beta 2\ portfolio\ size + \beta 3\ exposure\ to\ equity + \beta 4\ portfolio\ age + \beta 5\ return2008 + \beta 6\ returnQ1\_2009 + \beta 7\ returnQ2\_2009 + \beta 8\ management\ fees + \beta 9\ Average\ investor\ age + u \quad (4)$$

Table 9 Panel A presents the results for random sophistication classification using the entire 498 portfolios. Panel B presents results for random sophistication classification using the sample of 321 classified observations. In both cases an insignificant coefficient for random occupations is observed. Additional attempts to find significant effects on random sophistication were made but all turn statistically insignificant. The lack of significance observed for random classification gives further support to our proxy of sophistication.

Income level

It is reasonable to assume that more sophisticated investors (other things equal) will have higher net income. Hence, a further robustness check uses level of income as a proxy for the level of sophistication. We expect high income individuals (other things equal) to be less likely to agree to fee-rebate arrangement. The regression is as follows.

$$Fee\ rebate = \alpha + \beta 1\ Income + \beta 2\ portfolio\ size + \beta 3\ exposure\ to\ equity + \beta 4\ portfolio\ age + \beta 5\ return2008 + \beta 6\ returnQ1\_2009 + \beta 7\ returnQ2\_2009 + \beta 8\ management\ fees + \beta 9\ Average\ investor\ age + u \quad (5)$$

We repeat our experiment using income level as a proxy for level of sophistication. Income is a discrete variable from 1 (low) to 5 (high) corresponding to the five income categories as presented in Table 5. The positive correlation coefficient between income and occupation based sophistication (0.4) found is consistent with our conjecture that higher level of income is associated with higher level of sophistication.

Regression results using income as a proxy for sophistication are presented in Table 10. Panel A describes the results for Probit regression technique and Panel B details the results for LPM estimation technique. Again, we observe the same effect using both estimation methods. The coefficient on Income is significant and positive implying that investors with higher income level are more likely to prohibit fee rebates.

The consistent results found using three different proxies and different estimation technique enhance the conclusion. Sophisticated investors were more likely to prohibit fee rebates. The decision to allow it was inconsistent with the interests of the investors.

VI. ***Conclusions***

On March 2009 the Israeli Securities Authority required fund managers to get the investors' consent, in writing, so that they can continue to receive kickbacks from the brokers executing the trades. Kickbacks can induce excess trading, hence, giving permission to receive kickbacks seems inconsistent with investors' interests. Yet a dramatic majority of a sample of investors (1118 out of a sample of 1260) gave their consent in writing. This is surprising especially since not responding was interpreted as a prohibition.

The empirical evidence presented in this paper is consistent with the predictions of Stoughton, Wu, and Zechner (2011) and Inderst and Ottaviani (2012) – soft dollar arrangements are not in the best interest of less sophisticated investors. Indeed, in this paper we present the surprising results and show that the decision to consent is not value maximizing. The consenting investors did not receive a benefit or better treatment. To the contrary – their returns during the period following the consent were significantly lower than the returns of those who objected. The decision to consent cannot be explained by past performance. The performance of the portfolios of the consenting investors prior to the decision to consent did not outperform the others. Hence, the decision is not a reward on past success.

Furthermore, using three different proxies for the level of investors' sophistication it is shown that more sophisticated investors tended to prohibit fee rebates. The evidence indicates that those opposing to kickbacks enjoyed higher future returns.

The paper leaves open an interesting question – how come such a large fraction (89%) of the investors allowed future kickbacks? Is it a naïve unfounded belief that their portfolios will receive more attention and consequently better performance? Is it total ignorance? Or, were these investors under real economic pressure to agree? The different behavior of sophisticated investors and the superior performance of their portfolios seems to suggest that real economic pressure is not the only motive to consent.

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Appendix

Figure 1: Fee rebates request letter sent to company's XYZ clients.

The following document is the translated request letter sent to all clients with existing portfolio managed by company XYZ. The purpose of this letter is to get the client's consent to allow XYZ to receive part of the transaction fees associated with the portfolio from the broker. The tables below detail the exact percentage XYZ is entitled to from a Buy/Sell transaction for different assets.

Client name

_____

Bank name

_____

Account number

_____

Branch

_____

Addendum to investment portfolio management agreement regarding fee rebate from a Bursa member

I hereby confirm I am aware that company XYZ is entitled to receive from a bursa member, in which the account is managed (hereof "bursa member" or "bank"), rebate in the basis of fees the bank charges from the client's accounts, according to the bank rate and in accordance with the agreement between the bank and the client, due to transactions made by XYZ in the client accounts, as described in the financial investment portfolio agreement signed between myself and XYZ and in this addendum.

In accordance with the agreement between XYZ and the bursa member, to apply from 31.03.2009, XYZ is entitled to receive from the bursa member rebate of part of the charged fee from the client by the bursa member according to the following detail:

Fee sort	Rebate to XYZ of any amount above
Local equities	0.1% of the transaction

Local bonds	0.1% of the transaction
Israeli government notes (Makam)	0.05% of the transaction
Options	3.5 Shekels per option
Foreign Equities	0.1% of the transaction
Foreign Bonds	0.1% of the transaction

Consequence of the above, hereby a detail of the fees charged from the client by the bank and the rebate to XYZ out of them:

	Fee paid by the client to the bank	Rebate to XYZ
Buy/Sell fee local stocks	0.2%	0.1%
Buy/Sell fee local bonds	0.2%	0.1%
Buy/Sell fee Makam	0.12%	0.07%
Options fee	-	-
Buy/Sell fee foreign stocks	0.2%	0.1%
Buy/Sell fee foreign bonds	0.2%	0.1%

* XYZ is not entitled to receive a part of a minimum fee

The parties approve with their signature below the details in this addendum and the client gives his approval with his signature for XYZ to receive fee rebate from the bursa member.

Client signature	date	XYZ
Client signature	date	XYZ

Table 1:

This table describes the sample of investors who gave their consent to fee rebates (out of a total of 1260) and the sample of those who objected. The first column lists the investor type, the next three columns describe the number of investors for each type, the investors' age (average age of the legal representatives for firms) and the portfolio size on June 2009 in Shekels for consenting investors. The next three columns details the number of investors for each type, the investors' age (average age of the legal representatives for firms) and the portfolio size on June 2009 in Shekels for investors opposing fee rebates. Of the 1260 only 142 chose to prohibit fee rebates.

	Investors who consent to fee rebates			Investors opposing fee rebates			
Investor type	**Number of investors**	**Average age**	**Average portfolio size**	**Number of investors**	**Average age**	**Average portfolio size**	**number of investors**
Male	318	58.0	673,347	46	52.4	1,151,721	364
Female	144	61.5	595,330	15	54.4	810,149	159
Firm	46	56.6	10,197,573	16	57.3	16,372,402	62
Couple	531	60.8	865,897	56	58.8	888,514	587
Other	75	58.3	888,812	6	60.1	1,046,177	81
Missing	4	56.1	6,005,179	3		4,771,353	7
Grand Total	1118	59.8	1,162,329	142	56.1	2,798,857	1260

Table 2:

This table describes the sample of investors who gave their consent to fee rebates (out of a total of 1260) and the sample of those who objected. The first column lists the investor type, the next three columns describe the average exposure to equity, the monthly management fee and the portfolio age for the sample of consenting clients. The next three columns detail the average exposure to equity, the monthly management fee and the portfolio age for the sample of investors who prohibit kickbacks. The last columns contain the relative frequency of the various investors' types in our database.

	Investors who consent to fee rebates			Investors opposing fee rebates			
Investor type	**Average Exposure to Equity**	**Average management fee**	**Average portfolio age**	**Average Exposure to Equity**	**Average management fee**	**Average portfolio age**	**Number of investors**
Male	28.81%	0.095%	5.52	26.98%	0.083%	5.70	364
Female	19.12%	0.093%	4.79	25.36%	0.077%	4.73	159
Firm	15.57%	0.051%	5.30	15.47%	0.029%	6.45	62
Couple	24.56%	0.089%	5.54	24.53%	0.081%	6.01	587
Other	21.93%	0.084%	5.68	24.17%	0.070%	4.94	81
Missing	13.75%	0.069%	7.74	33.33%	0.008%	14.25	7
Grand Total	24.48%	0.089%	5.44	24.57%	0.073%	5.95	1260

Table 3:

This table details descriptive statistics of our sample. In particular, the portfolio size on June 2009 in thousand shekels, the exposure to equity, the monthly management fees, portfolio age, and investors' age.

Variable	Obs.	Mean	Std. Dev.	Min	Max
Portfolio size	1,240	1,350	6,587	0	193,534
Exposure to equity	1,222	24.49%	16.73%	0.00%	100.00%
Managing Fee	1,260	0.087%	0.028%	0.000%	0.150%
Portfolio age	1,260	5.50	3.11	0.43	23.62
Investor average age	1234	59.34	11.27	11.75	88.47

Table 4: This table details classification of 498 investors into two classes: Sophisticated and Unsophisticated based on professional occupations.

Sophisticated Investor		Unsophisticated Investor				Unknown Investor	
Professional Occupations	**Freq.**	**Non-Professional Occupations**	**Freq.**	**Non-Professional Occupations**	**Freq.**	**Unknown**	**Freq.**
agronomist	2	air conditioning	1	picture framer	2	100% disability	1
accountant	5	air field representative	1	police	1	acquisition manager	1
air conditioning engineer	1	aircraft mechanic	1	police officer	1	advertisement manager	1
architect	2	assistant	1	practical engineer	1	advisor	1
architecture professor	1	automobile mechanic	2	practical mechanical engineer	2	aerospace industry	2
banker	3	automobile tinsmiths	1	printing press	1	airline worker	1
biochemistry	1	bank clerk	2	private coacher	1	business development manager	1
biochemistry professor	1	bank employee	2	production worker	1	business man	3
Biology PhD.	1	bookkeeping	9	public servant	1	business manager	1
chemistry PhD	1	boutique owner	1	refurbishing contractor	1	business owner	1
Chief Executive Officer	5	car assessor	1	restaurateur	2	credit centralizer	1
Chief financial Officer	1	carpenter	2	sales	1	detective	1
Chief development officer	1	city council employee	1	sales manager	2	diamond merchant	4
civil engineer	4	clerk	1	secretary	10	education	2
computer engineer	2	computerizatio n manager	1	security	1	interior research	1
computers	7	construction contractor	2	shoes distributer	1	factory owner	1

Sophisticated Investor		Unsophisticated Investor				Unknown Investor	
dentist	2	Construction Manager	1	shopkeeper	1	family therapist	1
development	1	construction work manager	1	snacks shop owner	1	firm owner	1
doctor (MD)	11	contractor	2	social security manager	1	food industry	1
economist	5	control manager	1	spare parts manager	1	government office worker	1
electrical engineering PhD	1	crane driver	1	state employee	2	IDF (Israel defense forces)	1
electronic engineer	6	customs officer	1	store salesman	2	IDF disabled	1
engineer	23	driver	2	student	2	internal controller	1
factory manager	2	driving instructor	3	suppliers manager	1	management	2
firm manager	6	education management	1	swimming trainer	1	manager	2
hardware engineer	1	electrician	6	teacher	8	managerial advisor	1
head of emergency room	1	errands manager	1	technician	6	marketing manager	2
high-tech	2	farmer	9	tin cutter	1	media advisor	1
history lecturer	1	fashion	1	tourist guide	1	medicine	1
history professor	1	Feldenkrais instructor	1	traffic consultant	1	metals firm owner	1
industrial engineer	1	foreign trade	1	translator	1	pensioner	107
industrialist	2	forester	1	traveling agent	1	production line manager	1
information manager	1	graphic artist	1	TV lab manager	1	project executor	1
information system	1	handy man	1	warehousemen	1	project manager	2
lawyer	6	high school headmaster	1			psychotherapy	1
lecturer	10	house painter	1			real estate advisor	1

Sophisticated Investor		Unsophisticated Investor				Unknown Investor	
Chief marketing Officer	1	housefather	1			regional advisor	1
mathematician	2	housewife	4			self employed	9
mechanical engineer	2	human resources	2			store manager	2
microbiologist	1	importer	1			store owner	2
money manager	2	infant's craft teacher	1			unemployed	4
orthodontist	1	instructor	1				
pharmacist	1	insurance	1				
PhD in psychology	1	insurance agent	2				
psychologist	2	jeweler	2				
physicist	1	kindergarten teacher	1				
Pilot	1	laundry	1				
Play-writer	1	learning advisor	1				
programmer	2	librarian	1				
psychiatrist	3	logistic manager	1				
psychology professor	1	machinist	2				
Rabbi	1	maintenance	1				
reporter	1	maintenance man	1				
scientist	1	marketing and surveys	1				
social worker	2	marketing control	1				
software design	1	masseuse	1				

Sophisticated Investor		Unsophisticated Investor				Unknown Investor	
software engineer	4	merchant	1				
software manager	1	Ministry of defense	1				
special education teacher	1	musician	1				
surgeon	1	nurse	2				
system analyst	1	nursemaid	1				
technical engineer	1	painter	2				
textile engineer	1	pastry-cook	1				
veterinarian	2	perfume (self-employed)	1				
Total	**162**		**165**				**171**

Table 5: Income distribution for 498 investors with reported occupation.

Income level	Num of investors	% of investors
Refuse to report	110	22.1%
0-5,000	45	9.0%
5,000-10,000	93	18.7%
10,000-20,000	160	32.1%
20,000-40,000	77	15.5%
40,000 and above	13	2.6%
Total	498	100%

Table 6: Explaining portfolio returns

In the following regressions the dependent variable is portfolio return. The independent variables are: fee rebate dummy (1 if the client didn't agree), portfolio monthly management fees, portfolio size in thousand shekels and portfolio risk estimated by the maximum exposure to equity chosen by the investor.

Panel A: Dependent variable: 2010 returns (1114 portfolios)

Independent Variable	Coefficient	t-Statistic	Prob.
Fee Rebate	4.319	2.146	**0.032**
Managing Fee	-152.889	-6.271	0.000
Portfolio size	-.000077	-0.929	0.353
Exposure to equity	0.164	4.411	0.000
C	16.925	7.266	0.000

Panel B: Dependent variable: 2009 first half returns (1240 portfolios)

Independent Variable	Coefficient	t-Statistic	Prob.
Fee Rebate	0.453	1.165	**0.244**
Managing Fee	-6.002	-1.315	0.188
Exposure to equity	0.187	25.676	0.000
C	8.051	18.479	0.000

Panel C: Dependent variable: 2008 returns (1180 portfolios)

Independent Variable	Coefficient	t-Statistic	Prob.
Fee Rebate	0.034	0.072	**0.942**
Managing Fee	-25.238	-4.52	0.000
Exposure to equity	-0.331	-37.167	0.000
C	-0.165	-0.30	0.757

Table 7: Effect of Investor sophistication on Fee rebate.

These tables contain regressions where the fee rebate dummy is a dependent variable (1 if the client didn't agree). Estimation method is probit and LPM in panel A and B respectively. The independent variables are investor sophistication (using occupation data), monthly management fees, portfolio size on June 2009 in thousand shekels, exposure to equity, portfolio returns for the periods preceding the decision and the portfolio owners' average age. Number of Obs. is 321, out of which 289 agreed to transaction fees rebate.

Panel A: Dependent variable: Fee rebate, Probit estimation.

Independent Variable	Coefficient	z-Statistic	Prob.
Investor sophistication	0.490	2.247	**0.025**
Management fee	-9.039	-1.661	**0.097**
Portfolio size	9.38E-05	0.528	0.597
Exposure to equity	-0.012	-0.871	0.384
Portfolio age	0.062	1.555	0.120
2008 return	-0.042	-1.570	0.116
Q1 2009 return	-0.063	-0.778	0.436
Q2 2009 return	-0.042	-0.357	0.721
Investor average age	-0.024	-2.166	**0.030**
C	0.684	0.747	0.455

Panel B: Dependent variable: Fee rebate, Linear Probability estimation.

Independent Variable	Coefficient	t-Statistic	Prob.
Investor sophistication	0.082	2.427	**0.016**
Management fee	-1.499	-1.662	**0.098**
Portfolio size	2.63E-05	0.777	0.438
Exposure to equity	-0.001	-0.380	0.704
Portfolio age	0.009	1.453	0.147
2008 return	-0.007	-1.925	0.055
Q1 2009 return	-0.014	-1.029	0.304
Q2 2009 return	-0.012	-0.649	0.517
Investor average age	-0.004	-2.123	**0.035**
C	0.446	2.933	0.004

Table 8:

These tables contain regressions where the fee rebate dummy is the dependent variable, on the independent variables detailed below. Estimation method is probit and LPM in panel A and B respectively. The number of observations in this regression is 1178 of which 1048 agreed to fee rebate.

Panel A: Dependent variable: Fee rebate, Probit estimation.

Independent Variable	Coefficient	z-Statistic	Prob.
Firm	0.591	1.911	**0.056**
Male	0.316	1.358	0.175
Female	0.196	0.755	0.451
Couple	0.162	0.717	0.473
Investor average age	-0.016	-3.469	**0.001**
Manage fee	-8.054	-4.079	**0.000**
Portfolio size	-1.54E-06	-0.244	0.807
Portfolio age	0.030	1.689	0.091
Exposure to equity	-0.001	-0.251	0.802
C	0.019	0.050	0.960

Panel B: Dependent variable: Fee rebate, Linear Probability estimation.

Independent Variable	Coefficient	t-Statistic	Prob.
Firm	0.160	2.617	**0.009**
Male	0.060	1.523	0.128
Female	0.038	0.876	0.381
Couple	0.029	0.767	0.443
Investor average age	-0.003	-3.571	**0.000**
Manage fee	-1.655	-4.442	**0.000**
Portfolio size	-5.88E-08	-0.040	0.968
Portfolio age	0.006	1.849	0.065
Exposure to equity	0.000	-0.083	0.934
C	0.359	5.308	0.000

Table 9: Robustness Tests

Panel A: Dependent variable: Fee rebate, Probit estimation. Random sophistication assignment for all 498 investors with reported occupations.

Independent Variable	Coefficient	z-Statistic	Prob.
Random occupations	-0.106	-0.659	**0.510**
Management fee	-7.369	-1.801	0.072
Portfolio size	-1.68E-05	-0.163	0.870
Exposure to equity	-0.006	-0.564	0.572
Portfolio age	0.017	0.610	0.542
2008 return	-0.038	-1.848	0.065
Q1 2009 return	-0.088	-1.622	0.105
Q2 2009 return	-0.015	-0.179	0.858
Investor average age	-0.015	-2.065	0.039
C	0.691	1.073	0.283

Panel B: Dependent variable: Fee rebate, Linear Probability estimation. Random sophistication assignment to 327 investors originally classified as sophisticated / unsophisticated.

Independent Variable	Coefficient	z-Statistic	Prob.
Random occupations	0.234	1.138	**0.255**
Management fee	-10.697	-1.964	0.050
Portfolio size	0.000102	0.586	0.558
Exposure to equity	-0.006	-0.504	0.614
Portfolio age	0.070	1.793	0.073
2008 return	-0.041	-1.624	0.104
Q1 2009 return	-0.059	-0.739	0.460
Q2 2009 return	-0.067	-0.584	0.559
Investor average age	-0.025	-2.331	0.020
C	0.981	1.086	0.277

Table 10: Robustness Tests

Panel A: Dependent variable: Fee rebate, Probit estimation.

Independent Variable	Coefficient	z-Statistic	Prob.
Income	0.272	2.642	**0.008**
Management fee	-0.389	-0.074	0.941
Portfolio size	0.000245	1.501	0.133
Exposure to equity	-0.016	-1.229	0.219
Portfolio age	-0.022	-0.616	0.538
2008 return	-0.023	-0.980	0.327
Q1 2009 return	-0.073	-1.099	0.272
Q2 2009 return	0.039	0.373	0.709
Investor average age	-0.017	-1.878	0.060
C	-0.725	-0.822	0.411

Panel B: Dependent variable: Fee rebate, Linear Probability estimation.

Independent Variable	Coefficient	t-Statistic	Prob.
Income	0.040	2.604	**0.010**
Management fee	-0.017	-0.021	0.983
Portfolio size	4.42E-05	1.526	0.128
Exposure to equity	-0.002	-1.198	0.232
Portfolio age	-0.002	-0.403	0.687
2008 return	-0.004	-1.243	0.215
Q1 2009 return	-0.013	-1.183	0.238
Q2 2009 return	0.004	0.248	0.805
Investor average age	-0.003	-1.896	0.059
C	0.206	1.482	0.139

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The Use and Abuse of Mutual Fund Expenses

Todd Houge
Jay Wellman

ABSTRACT. Prior research shows that mutual fund investors are often aware of up-front charges like sales loads, but they are less mindful of annual operating expenses, even though both types of fees lower overall performance. This study documents the historical trend and recent abuse of annual mutual fund expenses. As the industry becomes more adept at segmenting customers by level of investment sophistication, we claim that load mutual fund companies take advantage of this ability and charge higher expenses to their target customer: the less-knowledgeable investor. No-load fund companies, which tend to attract the more sophisticated investor, offer lower expenses. For example, over 2000–2004 the average annual expense ratio of load equity funds was 50 basis points higher than no-load equity funds. We show evidence of this widening cost disparity since the early 1990s among new and existing equity, bond, and index funds. We also document a growing abuse of sales distribution or 12b-1 fees among funds that are closed to new investors, almost all of which are load funds. Thus, load fund investors are more susceptible to paying higher expenses and receiving lower returns over time.

KEY WORDS: 12b-1 fees, asset management fees, expense ratios, mutual funds, sales loads

Introduction

Mutual funds provide investors with convenient access to professional asset management services and broad portfolio diversification. Investors can purchase funds that offer exposure to various financial markets such as stocks, bonds, or real estate. By pooling capital with many other investors, each mutual fund shareholder owns a fraction of a larger, well-diversified, and professionally managed portfolio. Fund investors also benefit from economies of scale. As total shareholder resources increase, transaction costs become a smaller portion of the total portfolio. This is particularly important since higher expenses directly reduce portfolio returns.

Given these benefits, mutual funds have been one of the fastest growing areas of the U.S. financial services industry. From total investments of just $47.6 billion in 1970, today the industry manages $8.1 trillion across more than 8,000 different funds. The Investment Company Institute (2005) estimates that mutual fund ownership has also risen from 5.7% of U.S. households in 1980 to 48.1% in 2004. In fact, mutual fund investments now comprise 19.5% of all household financial assets and represent the largest type of financial intermediary.

One reason for the popularity of mutual funds is that the industry has successfully marketed these investments to consumers. In essence, mutual funds are part investment vehicle, part consumer product. Fund companies attempt to differentiate their funds by aggressively marketing historical performance, investment policy, and quality of service. Yet, a General Accounting Office (2000) report notes that unlike most consumer products, mutual funds rarely endeavor to compete on cost.

This study documents the historical trend and recent abuse of annual mutual fund expenses for certain investors. Over the last 15 years, the fund industry appears to have become very adept at segmenting customers by level of investment sophistication. Using a sample that includes all U.S. equity and bond mutual funds from 1970 to 2004, we provide evidence that less-knowledgeable investors pay consistently higher asset management fees than more-knowledgeable investors holding similar

Todd Houge is an Assistant Professor of Finance at the University of Iowa.
Jay Wellman is an Assistant Professor of Finance at Binghamton University.

funds. This widening cost disparity is evident among new and existing equity, bond, and index funds.

Mutual funds are sold through two main distribution channels: directly from the fund underwriter or indirectly through a broker. We suggest that knowledgeable investors are more likely to purchase directly through a fund's underwriter, avoiding all sales commissions or "loads." Less-knowledgeable (or less confident) investors are more likely to seek assistance from a broker or financial advisor, who receives a commission for selling load funds to investors. Prior research has clearly shown that load funds do not outperform no-load funds; sales loads are a deadweight cost that reduces the returns earned by the investor. Thus, we use a fund's load as a proxy for investor sophistication.

While mutual fund investors are often aware of up-front charges like sales loads, research shows they are often less cognizant of annual operating expenses, even though both types of fees are deadweight costs. Barber et al. (2005) document a negative relation between fund flows and sales loads, but no relation between operating expenses and fund flows. Alexander et al. (1998) also find that fewer than one in five mutual fund investors could estimate the annual expenses for their holdings. Since mutual fund returns are reported net of annual operating expenses, they are easily missed by investors. When a fund gains or loses over 20% in a given year, it is easy to see how investors might focus on the volatility rather than the cost of their funds.

Once invested in a high expense fund, investors may be less willing to search for lower cost alternatives. With thousands of mutual funds offered by hundreds of fund families, sorting through the choices is daunting. Sirri and Tufano (1998) contend that when search costs are high, individual investors turn to rating services and periodicals for advice. They document that fund flows relate directly to the size of the fund complex and level of media attention received by the fund. Since most mutual fund advertising focuses on past performance rather than cost, funds that spend disproportionately on marketing and distribution will tend to attract the less-knowledgeable investors that rely on these publications.

While load funds had significantly lower expense ratios in the early years of the sample, we find that the reverse is now true. Over 2000–2004, the average annual expense ratio of load funds was 50 basis points higher than no-load funds, 1.17% versus 0.67%. Although much of this increase results from the widespread use of sales distribution (12b-1) fees, we show that load funds also charge significantly higher expenses for core asset management and administrative services. These trends are even more evident among newly offered funds. For equity funds in their first year of operation, the average expense ratio charged by load funds is 1.68% compared to just 0.49% for no-load funds.

Index funds seek to passively mimic the performance of a specified market index and are a widely touted alternative to high cost mutual funds. Since no managerial skill is required to pilot such portfolios, index funds usually have low turnover and low expenses. Yet, we find that the average expense ratio for load index funds is a significant 36 basis points higher than for no-load index funds over 2000–2004.

If sales loads proxy for the level of investor sophistication, then load fund investors appear more susceptible to paying higher expenses over time. These investors essentially pay high fees for the privilege of having funds marketed to them. Yet, unlike other consumer products, higher mutual fund costs are not associated with higher quality. In fact, the opposite is true; all else equal, higher operating expenses lower fund returns. Using different share classes to segment customers by level of investment knowledge allows the fund industry to boost profits at the expense of less sophisticated investors. The dramatic increase in the number of mutual funds over the last two decades may be as much a response to the growth of industry profitability as to the demand from investors.

Mutual fund sales loads and operating expense ratios

The direct costs of distributing and operating a mutual fund are levied against fund shareholders. These costs fall within two broad categories of fees: sales loads and annual operating expense ratios, expressed as a percentage of total fund assets. Funds are required to report their expenses in the prospectus using a standardized format.

Sales loads are one-time commissions frequently paid by investors who trade funds through a broker

or financial advisor. The load is expressed as a percentage deducted from the value of the investment. The maximum allowable sales load is 8.50%. Front-end loads are paid at the time when shares are purchased. Back-end loads are redemption fees charged when fund shares are sold. Investors who purchase shares directly from a fund's underwriter generally do not incur sales loads. These funds are referred to as no-load funds.

Barber et al. (2005) note that 91% of U.S. equity mutual fund assets were invested in front-end loaded funds in 1962, with an average fee above 8%. The growth and popularity of no-load funds put downward pressure on sales loads starting in the mid-1970s. Loads declined steadily throughout the 1980s and early 1990s. By 1999 just 35% of equity funds charged a front-end load, with an average fee of about 5%.

Mutual funds charge annual operating expenses to cover the administrative costs associated with managing the portfolio. These fees can range from just a few basis points to over 2% of fund assets. Mutual fund expense ratios consist of three components: management fees, 12b-1 fees (also called distribution or service fees), and other expenses. Management fees are viewed as the cost of managing and operating the portfolio. The 12b-1 fees are marketing costs named after an SEC rule that allows funds to pass along marketing or distribution costs such as advertising expenses and brokerage commissions to shareholders. Maximum 12b-1 fees are capped at 0.75% plus an additional 0.25% annual service fee. Funds that charge more than 0.25% in annual 12b-1 fees are not allowed to advertise themselves as no-load funds. The "other" administrative expenses include legal, accounting, reporting, and director fees.

The adoption of rule 12b-1 in October 1980 remains one of the most controversial areas of mutual fund governance. According to Walsh (2004), the fund industry's original justification for 12b-1 fees was that such fees help to attract new shareholders into funds through advertising and by providing incentives for brokers to market the fund. Walsh reports that while funds with 12b-1 fees grow faster than funds without them, shareholders do not obtain the promised benefits from economies of scale in the form of lower average expenses. She argues that fund shareholder pay the cost of marketing the fund, while the fund's underwriter reaps most of the benefits of the fund's growth. We suggest that adoption of rule 12b-1 fees established the mechanism which allows the industry to segment its customers by level of sophistication and charge higher fees to those less-knowledgeable investors.

Mutual fund data and empirical results

The mutual fund data comes from the Center for Research in Security Prices (CRSP) Survivor Bias-Free U.S. Mutual Fund Database. The sample includes all surviving and non-surviving funds that invest in either U.S. stocks or bonds. We exclude international funds, money market funds, and sector funds. Equity (bond) funds must invest at least 80% of its portfolio in stocks (bonds) to be included in the sample for a given calendar year. The final sample contains 80,708 fund years (46,648 equity funds and 34,060 bond funds) from 1970 to 2004.

Figure 1 presents equally weighted and total net asset (TNA) weighted average expense ratios for equity and bond funds over 1970–2004. Expense ratios include management fees, 12b-1 fees, and other expenses. The TNA weighted expense ratios increased for both equity and bond funds between 1970 and the early 1990s before declining slightly over the last decade of the sample. For equity funds, TNA weighted expenses peak in 1994 at 0.99%, but fall to 0.84% in 2004. Bond fund expenses hit their peak in 1990 with a TNA weighted average of 1.01% before falling to 0.67% in 2004.

The long-term trends reported in Figure 1 are consistent with those identified by Barber et al. (2005) and Houge and Loughran (2006). The average expense ratio paid by equity and bond fund investors steadily rose for decades. Yet, the recent decline in TNA weighted expenses implies a shift among mutual fund investors toward lower cost funds. This change is consistent with the notion that fund investors are slowly becoming more aware of the negative impact of fund expenses on performance. Despite the growing demand for low-cost equity and bond funds, equally weighted average expense ratios continue to rise. This divergence suggests that fund companies continue to introduce new equity and bond funds with disproportionately higher operating expenses.

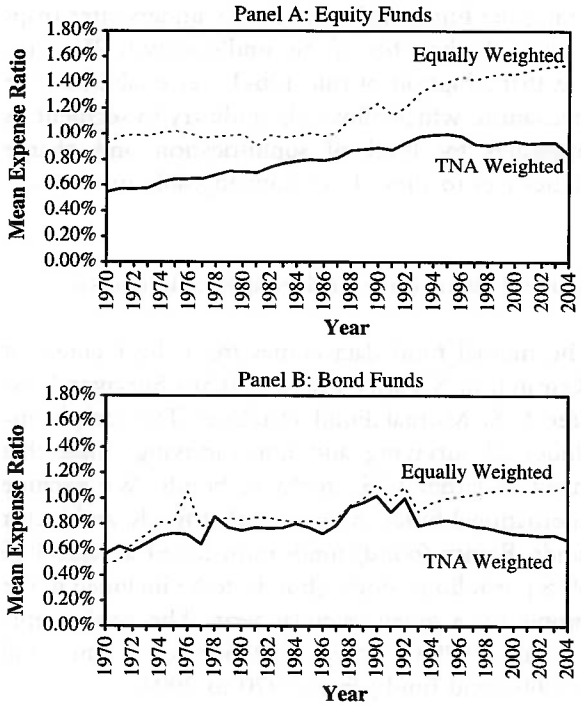

Figure 1. TNA weighted and equally weighted expense ratios of equity and bond mutual funds, 1970–2004. Source: CRSP Survivor-Bias Free U.S. Mutual Fund Database. *Note*: The sample includes all surviving and non-surviving funds that invest in either U.S. stocks or bonds. International funds, money market funds, and sector funds are excluded. Equity (bond) funds include funds investing at least 80% of their portfolio in U.S. equities (bonds). TNA is the total net assets of the fund. The expense ratio includes management fees, 12b-1 fees, and other expenses.

Figure 2 plots the TNA weighted average expense ratios of equity and bond funds by sales load. Interestingly, load equity funds in Panel A had significantly lower expense ratios than no load funds over the first 20 years of the sample. We find a similar, although less consistent, relationship across the bond funds in Panel B. The lower expense ratio of load funds was prevalent for up to 10 years after the 1980 adoption of rule 12b-1. After 1990, we see a very different story. Load fund expenses increase sharply for both equity and bond funds, while no-load fund expenses decrease. This period appears to indicate a shift in the marketing of load and no-load funds to investors.

Figure 3 reveals the magnitude of the divergence between load and no-load fund expense ratios. Load equity funds in Panel A show average expenses that are 5–22 basis points lower than no-load equity funds over 1970–1988. The gap in expense ratios reverses after 1989. The average expense ratio of load equity funds is a statistically significant 21 basis points higher than no-load equity funds in 1992 and 54 basis points higher in 2004. We find similar trends for bond funds in Panel B. In the late 1980s, load bond funds carried significantly lower expenses than no-load bond funds, but experience a sharp reversal after 1989. Over the last 13 years of the sample, the expense ratios of load bond funds were

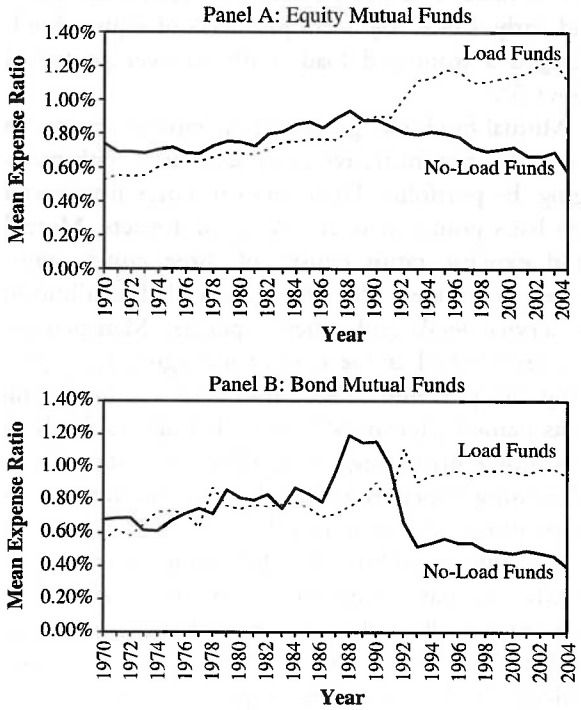

Figure 2. TNA weighted expense ratios of equity and bond mutual funds categorized by sales load, 1970–2004. Source: CRSP Survivor-Bias Free U.S. Mutual Fund Database *Note*: The sample includes all surviving and non-surviving funds that invest in either U.S. stocks or bonds. International funds, money market funds, and sector funds are excluded. Equity (bond) funds include funds investing at least 80% of their portfolio in U.S. equities (bonds). TNA is the TNAs of the fund. The expense ratio includes management fees, 12b-1 fees, and other expenses. Load funds include all funds charging a front or rear sales load or any fund charging 12b-1 fees of over 25 basis points per year.

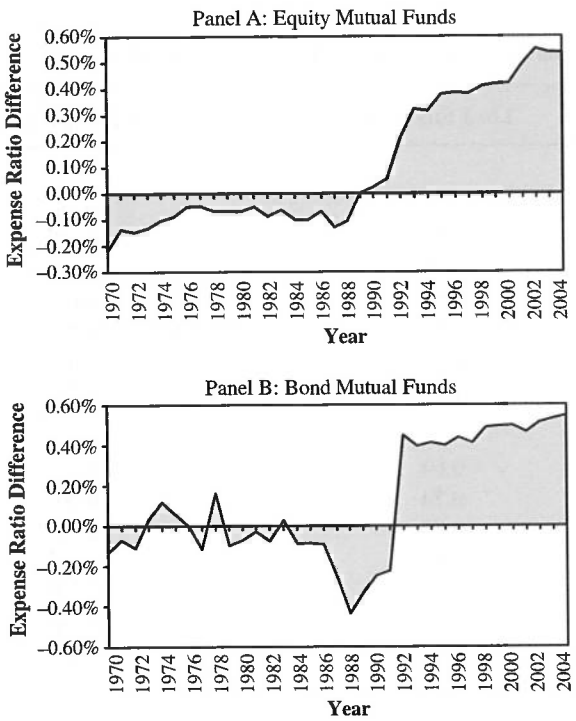

Figure 3. TNA weighted expense ratios of load funds minus no-load funds, 1970–2004. Source: CRSP Survivor-Bias Free U.S. Mutual Fund Database *Note*: The sample includes all surviving and non-surviving funds that invest in either U.S. stocks or bonds. International funds, money market funds, and sector funds are excluded. Equity (bond) funds include funds investing at least 80% of their portfolio in U.S. equities (bonds). TNA is the total net assets of the fund. The expense ratio includes management fees, 12b-1 fees, and other expenses. Load funds include all funds charging a front or rear sales load or any fund charging 12b-1 fees of over 25 basis points per year.

between 39 and 55 basis points higher than no-load bond funds.

Table I tests the difference in expenses between load and no-load funds for five-year periods beginning in 1970. Over the first four periods in Panel A, load equity funds have significantly lower expenses than no-load equity funds. Load fund expenses are significantly higher over the last three periods. These differences are all statistically significant at the 1% level. Load bond fund expenses in Panel B, although generally lower than no-load bond fund expenses, are not statistically different for 1970–1984. From 1985 to 1989, however, load bond funds have significantly lower expenses: 0.76% versus 1.09% for no-load bond funds. This difference reverses dramatically over the final three periods, as load bond fund expenses significantly exceed those of no-load bond funds by 29, 45, and 51 basis points per year, respectively.

Sales loads, as a proxy for investor sophistication, allow fund companies to segment customers and potentially extract higher fees from less-knowledgeable investors. While firms often face difficulty raising the expense ratio of an existing fund, they have much greater flexibility when issuing a new fund. If fund companies compete on cost, then we would expect new funds to report lower expense ratios over time. Thus, expense ratio trends among newly issued funds indicate the emphasis of the industry. Panels C and D of Table I present average expenses for equity and bond funds in their first year reporting on the CRSP database. Prior to 1990, the number of newly created funds each year is fairly small, so we focus our analysis on the last 15 years of the sample period.

We find an even greater cost disparity among newly issued load and no-load funds over 1990–2004. Across the three time periods, the expense ratios of new load equity funds in Panel C average 36, 89, and 119 basis points higher than new no-load equity funds. These differences are highly significant at the 1% level. While the average cost of new load equity funds increased by over 30 basis points, the cost of new no-load equity funds actually fell by more than 50 basis points. We observe similar differences between new load and no-load bond fund expenses in Panel D. New load bond funds cost investors an average of 75, 50, and 60 basis points per year more than new no-load bond funds across the three time periods, respectively.

To be fair, however, it is worth noting that new no-load funds were significantly larger than new load funds: twice the size over 1995–1999 ($84.2 million versus $41.0 million) and five times the size over 2000–2004 ($196.4 million versus $43.8 million). Yet, the industry opened twice as many new load funds as no-load funds in 2000–2004, so it appears that some of this size differential was self-selected.

Index funds are one area we expect to find very little differential between the cost of load and no-load funds. The primary advantage of

TABLE I

TNA weighted average expense ratios for equity and bond mutual funds categorized by sales load, 1970–2004

Period	No-load funds (%)	Load funds (%)	Difference (%)
Panel A: Equity funds			
1970–1974	0.70	0.55	−0.15*
1975–1979	0.72	0.65	−0.07*
1980–1984	0.80	0.72	−0.08*
1985–1989	0.88	0.81	−0.07*
1990–1994	0.82	1.06	0.24*
1995–1999	0.73	1.13	0.40*
2000–2004	0.67	1.17	0.50*
Panel B: Bond funds			
1970–1974	0.64	0.64	0.00
1975–1979	0.74	0.74	−0.00
1980–1984	0.82	0.77	−0.05
1985–1989	1.09	0.76	−0.33*
1990–1994	0.63	0.94	0.29*
1995–1999	0.52	0.97	0.45*
2000–2004	0.46	0.97	0.51*
Panel C: New equity funds			
1990–1994	1.01	1.37	0.36*
1995–1999	0.82	1.71	0.89*
2000–2004	0.49	1.68	1.19*
Panel D: New bond funds			
1990–1994	0.59	1.34	0.75*
1995–1999	0.69	1.19	0.50*
2000–2004	0.51	1.11	0.60*
Panel E: Equity index funds			
1995–1999	0.19	0.50	0.31*
2000–2004	0.19	0.55	0.36*

* Statistically significant at the 1% level.
** Statistically significant at the 5% level.
*** Statistically significant at the 10% level.
Source: CRSP Survivor-Bias Free U.S. Mutual Fund Database.
Note: The sample includes all surviving and non-surviving funds that invest in either U.S. stocks or bonds. International funds, money market funds, and sector funds are excluded. Equity (bond) funds include funds investing at least 80% of their portfolio in U.S. equities (bonds). TNA is the total net assets of the fund. The expense ratio includes management fees, 12b-1 fees, and other expenses. Load funds include all funds charging a front or rear sales load or any fund charging 12b-1 fees of over 25 basis points per year. New funds are funds in their first year of existence in the CRSP database. Index funds were selected on the basis of having the word "Index" or its abbreviation in the fund's name.

index investing is tracking the performance of a benchmark index at a low cost. We examine the expense ratios of equity index funds in Panel E of Table I. Since few bond index funds are available, we limit our sample to only equity index funds, which gained popularity in the mid-1990s. Again the story is similar: load funds are significantly more expensive. For example, the average expense ratio of no-load index funds from 2000 to 2004 is a mere 19 basis points, compared to 55 basis points for load index funds. Even among these low-cost vehicles, load fund investors pay higher fees than no-load investors.

Why do we see such sharp increases in load fund expense ratios in recent years? The increased use of

TABLE II

Total net asset weighted 12b-1 and asset management fees for equity, bond, and equity index funds categorized by sales load

	12b-1 fees (%)			Expense ratio less 12b-1 fees (%)		
	No-load	Load	Difference	No-load	Load	Difference
Panel A: Equity funds						
1990–1994	0.01	0.27	0.26*	0.79	0.84	0.05*
1995–1999	0.01	0.36	0.35*	0.71	0.76	0.05*
2000–2004	0.02	0.39	0.37*	0.65	0.78	0.13*
Panel B: Bond funds						
1990–1994	0.01	0.30	0.29*	0.52	0.65	0.13*
1995–1999	0.01	0.30	0.29*	0.51	0.67	0.16*
2000–2004	0.01	0.33	0.32*	0.45	0.64	0.19*
Panel C: New equity funds						
1990–1994	0.03	0.30	0.27*	0.99	1.07	0.08***
1995–1999	0.01	0.65	0.64*	0.81	1.06	0.25*
2000–2004	0.02	0.68	0.66*	0.47	1.01	0.54*
Panel D: New bond funds						
1990–1994	0.01	0.57	0.56*	0.58	0.77	0.19*
1995–1999	0.00	0.50	0.50*	0.69	0.69	0.00
2000–2004	0.02	0.56	0.54*	0.48	0.54	0.06**
Panel E: Equity index funds						
1995–1999	0.00	0.10	0.10*	0.19	0.40	0.21*
2000–2004	0.00	0.17	0.17*	0.18	0.39	0.21*

* Statistically significant at the 1% level.
** Statistically significant at the 5% level.
*** Statistically significant at the 10% level.
Source: CRSP Survivor-Bias Free U.S. Mutual Fund Database.
Note: The sample includes all surviving and non-surviving funds that invest in either U.S. stocks or bonds. International funds, money market funds, and sector funds are excluded. Equity (bond) funds include funds investing at least 80% of their portfolio in U.S. equities (bonds). TNA is the total net assets of the fund. The expense ratio includes management fees, 12b-1 fees, and other expenses. Load funds include all funds charging a front or rear sales load or any fund charging 12b-1 fees of over 25 basis points per year. New funds are funds in their first year of existence in the CRSP database. Index funds were selected on the basis of having the word "Index" or its abbreviation in the fund's name. The 12b-1 fees are available on CRSP beginning in 1993. Asset management fees are calculated by subtracting the 12b-1 fee from a fund's expense ratio.

12b-1 fees is a major factor. Over time the industry has regarded 12b-1 fees as a substitute for sales loads. The fund industry has also argued historically that 12b-1 fees are cost-neutral: assets of funds charging 12b-1 fees should increase due to higher broker motivation to sell such funds. As the size of the fund increases, the operating expenses will decrease to negate the size of the 12b-1 fee.

Instead, Ferris and Chance (1987) and Livingston and O'Neal (1998) show that 12b-1 fees are a deadweight loss to investors. McLeod and Malhotra (1994) and Malhotra and McLeod (1997) find that the deadweight loss from 12b-1 fees increases over the 1988–1993 period. Thus, while 12b-1 fees may provide an incentive for brokers to sell these funds, it appears that investors do not receive any of the

TABLE III

Mutual funds closed to new investors that charge 12b-1 fees by year

Year	Number of funds	Average TNA	Average expense (%)	Average 12b-1 (%)	Load funds (%)
Panel A: Equity funds					
1995	0	–	–	–	–
1996	0	–	–	–	–
1997	0	–	–	–	–
1998	1	541.7	1.26	0.25	0.0
1999	6	754.3	1.47	0.54	50.0
2000	9	380.4	1.65	0.64	66.7
2001	34	265.7	1.88	0.68	79.4
2002	78	302.2	1.82	0.66	78.2
2003	116	418.7	1.88	0.65	79.3
2004	119	412.8	1.88	0.65	79.8
Panel B: Bond funds					
1995	1	76.2	1.91	1.00	100
1996	1	119.9	2.10	0.90	100
1997	1	249.9	1.73	0.91	100
1998	4	874.4	1.41	0.67	100
1999	4	717.8	1.36	0.66	100
2000	4	497.4	1.36	0.64	100
2001	7	281.8	1.43	0.61	100
2002	12	226.9	1.46	0.61	100
2003	26	337.8	1.33	0.56	100
2004	25	325.5	1.33	0.57	100

Source: CRSP Survivor-Bias Free U.S. Mutual Fund Database.

Note: The sample includes all surviving and non-surviving funds that invest in either U.S. stocks or bonds. International funds, money market funds, and sector funds are excluded. Equity (bond) funds include funds investing at least 80% of their portfolio in U.S. equities (bonds). TNA is the total net assets of the fund. The expense ratio includes management fees, 12b-1 fees, and other expenses. Load funds include all funds charging a front or rear sales load or any fund charging 12b-1 fees of over 25 basis points per year.

suggested long-term benefits. Instead, these fees seem to merely increase the profits of the fund companies at the expense of shareholders.

Table II decomposes mutual fund operating expenses into asset management and 12b-1 fees. CRSP reports 12b-1 fees beginning in 1993. To estimate asset management fees, we subtract a fund's 12b-1 fee from its total expense ratio. We report TNA weighted expenses for new and existing equity, bond, and equity index funds categorized by sales load. The table shows the average 12b-1 fee for no-load funds is at or near zero. Not only are 12b-1 fees primarily limited to load funds, but also their use among equity funds appears to have increased substantially over time. The average 12b-1 fees of load equity funds have increased from 27 to 39 basis points since the early 1990s; for new load equity funds these fees jumped from 30 to 68 basis points over the same period. Load equity index funds do charge lower 12b-1 fees, but even those have increased over the sample, from 10 to 17 basis points.

The use of 12b-1 fees among load funds is clearly seen in our data. These fees are heavily discussed in the financial press. In contrast, mutual fund asset management fees garner considerably less attention. These fees cover the costs of operating and managing the portfolio. While differences in distribution networks may influence sales loads and 12b-1 fees, the cost of managing the underlying fund portfolio should be similar across load and no-load funds.

Table II also provides the average asset management expenses for load and no-load funds. Interestingly, load

funds again charge categorically higher management fees than no-load funds. The differences are considerably smaller than with 12b-1 fees, yet are still generally significant at the 1% level. This disparity appears to either hold constant or get larger over time. Management expenses for both load and no-load funds surprisingly decline over the sample period; however, no-load funds appear to gain a larger share of this cost savings compared to similar load funds.

Cost differences increase from 5 to 13 basis points for equity funds (Panel A) and from 13 to 19 basis points for bond funds (Panel B). New equity funds (Panel C) see the largest increase in relative management fees between load and no-load funds during this period, growing from a marginally significant 8 basis points over 1990–1994 to 54 basis points over 2000–2004. Perhaps most enlightening is the difference in asset management expenses for equity index funds (Panel E). Management fees of load index funds are twice as high over 2000–2004 as no-load index funds: 39 basis points versus 18, respectively. We cannot identify a financial reason why passive funds should have such categorically different management expenses.

Increasing 12b-1 fees do not imply that load funds have higher distribution costs. Rather, these fees are used instead of front- and back-end loads to pay for broker compensation. Although average sales loads have decreased roughly 3% over the past three decades, it appears that load funds use 12b-1 fees to shift these costs from up front, where investors see them clearly, to the annual expense ratio, where they do not.

A growing number of funds that have permanently or temporarily closed to new investors or new investments also continue to charge 12b-1 fees. In other words, these funds charge shareholders a fee for marketing and distributing the fund, even though the fund is closed to new investment. Not only are these charges unethical, but they are also a clear violation of the intended use of these fees as outlined in rule 12b-1.

We examine this issue in Table III. The CRSP database identifies active funds that are closed to new investors. The number of closed funds that continue to charge 12b-1 fees has increased significantly, particularly for equity funds. We identified only one closed fund with a 12b-1 fee in 1998, but 119 such funds by 2004. Closed equity and bond funds charged their investors average 12b-1 fees of 65 and 57 basis points for marketing and distribution costs in 2004, even though these funds were not open to new investors. The vast majority of these funds are load funds: nearly 80% of the equity funds and all 100% of the bond funds. These are not particularly small funds, either. These funds average hundreds of millions of dollars in total assets under management, which is near the median sized mutual fund over this period.

Under the directives of Rule 12b-1, a mutual fund's board of directors is obligated to regularly re-evaluate the benefits of these fees to the fund's shareholders. Yet, many of the same close equity and bond funds show up in this sample year after year extracting unnecessary 12b-1 fees. By allowing this practice to continue, these boards breach their fiduciary duty to shareholders. Regulatory authorities are certainly aware of this practice, yet they also appear unwilling protect these fund investors by enforcing the law.

Conclusion

Mutual funds aggressively advertise historical performance but rarely compete on expenses. Even though these fees represent a deadweight cost on long-term returns, few investors can actually estimate the annual expenses of their fund holdings. We contend the fund industry has become very adept at segmenting customers by level of investment sophistication. The industry uses this ability to market high expense funds to less-knowledgeable customers. Once invested in these funds, investors may face high costs to search for a lower fee alternative, often inducing them to maintain the status quo.

Load funds consistently charge higher 12b-1 fees, asset management fees, and total expenses than their no-load counterparts, a clear sign that load and no-load fund investors display different levels of sophistication. Over time the industry has regarded 12b-1 fees as a substitute for sales loads, shifting a portion of these up-front charges to the annual expense ratio where they are less likely to be noticed by investors. We also find growing abuse of sales distribution or 12b-1 fees by funds that are closed to new investors, almost all of which are load funds.

Market segmentation to provide different levels of customer service can be beneficial to investors. Market segmentation to extract higher fees from less-knowledgeable investors raises ethical concerns. The SEC is currently investigating one simple, yet

potentially effective, solution. The proposal would require funds to disclose the dollar amount of operating expenses paid by each shareholder in a given year. While this change would not prevent mutual funds from charging high 12b-1 fees or operating expenses, it would arm investors with information necessary to make more informed mutual fund decisions.

Ironically, the increase in expense ratios of load funds undermines a key sales pitch often made by the brokerage industry. The industry argues that load funds are cheaper in the long run because they have lower annual expense ratios compared to no-load funds. While a sales load lowers an investor's performance initially, he or she would more than make up for that in the annual expense savings over time.

It is true that load funds did have lower expense ratios over 1970–1990. Whether they were low enough to allow investors to recoup the high loads of the time is unlikely, at least on average. Yet, one could argue that this was at least a noble lie, since it motivated investors to hold their mutual funds for the long-term and encouraged value-maximizing behavior.

The mutual fund industry seems to have currently embraced a path that generates the most profit with the least resistance from investors. This trend makes load funds an increasingly poor long-term investment, dependant on the unsophisticated investor for its continued success. Load fund shareholders often pay high fees to market and grow the fund, but the fund's advisor is the most likely beneficiary of this growth. As a whole, load funds are not serving investors well over time.

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Todd Houge
Tippie College of Business,
The University of Iowa,
S288 PBB, Iowa City, IA, 52242-1994,
U.S.A.
E-mail: todd-houge@uiowa.edu

Jay Wellman
A-316 School of Management
Binghamton University
Binghamton, NY, 13902,
U.S.A.

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Compensation Practices for Retail Sale of Mutual Funds: the Need for Transparency and Disclosure

John Howat* Linda Reid†

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COMPENSATION PRACTICES FOR RETAIL SALE OF MUTUAL FUNDS:[1] THE NEED FOR TRANSPARENCY AND DISCLOSURE

John Howat, PhD
Associate Professor of Finance
University of Wisconsin-Whitewater

Linda Reid, JD
Assistant Professor of Law,
University of Wisconsin-Whitewater

I. INTRODUCTION

Mutual fund firms, also known as investment companies or investment trusts, buy and sell stocks, bonds, and other securities.[2] A fund raises money to make its purchases by selling shares in itself. The fund pools the money of many investors—its shareholders—to invest in the securities.[3] Those securities are professionally managed by fund managers on behalf of the shareholders. After the trading costs and expenses of managing and administering the fund are subtracted, the earnings realized by the fund on its investment portfolio are paid out

1. Technically, a mutual fund is an open-end management company registered with the Securities and Exchange Commission ("SEC" or "Commission") under the Investment Company Act of 1940, 15 U.S.C. §§ 80a-1 to -64 (2005) [hereinafter the Investment Company Act]. An "open-end company" is a management company that issues a redeemable security. 15 U.S.C. § 80a-5(a)(1) (2005).

2. Mutual fund firms are also known as *mutual fund complexes* and *mutual fund companies*. For the purposes of consistency in this paper, we refer to them as *mutual fund firms* or *funds,* and to the persons who manage the funds as *mutual fund managers* or *fund managers.*

3. The term redeemable security is defined in Section 2(a)(32) of the Investment Company Act to mean a security the terms of which entitles the holder, upon presentation "to receive approximately his proportionate share of the issuer's current net assets, or the cash equivalent thereof." 15 U.S.C. § 80a-2(a)(32) (2005).

pro-rata to the fund's shareholders. Shareholders may also realize investment gains by selling (or redeeming) their shares back to the fund at the shares' net asset value (the total value of the fund's assets divided by the number of shares outstanding).

Mutual funds have recently become increasingly popular vehicles for individual investors in the United States. In 1980 there were 564 funds with assets totaling $134.8 billion.[4] As of the end of December 2005 there were 7,977 funds with combined assets of $8.905 trillion.[5] Similarly, in 1980, 4.6 million households owned mutual fund shares, representing only 5.7% of all households in the United States.[6] As of 2005, 91 million individuals in 54 million households (nearly half of all households) owned mutual funds.[7] It should be noted that the majority of household investments in mutual funds occur through employee retirement plans.[8] A healthy percentage, however, is purchased by the investors themselves, and of those purchases, more than 80% are made through financial professionals.[9]

Individual investors can purchase mutual fund shares on the retail market in one of two ways, either directly from the fund, or through an intermediary seller. In the first case, investors purchase "direct-marketed funds" via phone, mail, or the internet. In the second instance, the fund's underwriter acts as a wholesaler or distributor to an intermediary firm, (e.g. a brokerage firm, an asset management company, a financial planning firm, an insurance agency, or a bank) which in turn sells to the individual investor via a sales force.[10] Some brokerage firms also sell their own private-label funds.

The typical retail shopper who purchases shares through a financial adviser will be given a fund prospectus. The prospectus includes information regarding the investment objective of the fund, the historical

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4. Investment Company Institute, *2006 Investment Company Fact Book* 71 (46th ed. 2006), *available at* http://www.ici.org/stats/mf/2006_factbook.pdf.

5. *Id.*

6. *Id.* at 47.

7. *Id.*

8. *See id.* at 50.

9. *Id.*

10. For the purpose of consistency in this paper, we refer to these salespersons as *investment advisers*. The term *advisor* is also proper and is used by several professional organizations. In specific instances we use the terms *brokerage firms* and *brokers*. Brokers and other financial advisers will have the NASD Series 6 license, which allows them to sell mutual fund products. Many will also have the NASD Series 7 license, which allows them to sell securities.

investment performance of the fund, and the costs and expenses the shareholder will pay. The compensation received by the financial adviser for recommending or selling the shares is included in the fee table in the prospectus; however, in most cases it is not identified explicitly. Adviser compensation information is required to be presented explicitly in the Statement of Additional Information (SAI). The SAI must also include a description of potential conflicts of interest which the adviser's method of compensation might create. Notable, however, is the fact that the SAI is provided to the potential shareholders only if they specifically request it.

Brokerage firms and the various financial advisers who sell mutual funds to retail purchasers may be compensated in a variety of ways, including (1) loads, or sales charges paid directly by the purchaser; (2) marketing fees, also known as 12b-1[11] fees; and (3) fund servicing and operating expenses.[12] Both 12b-1 and fund expense fees are paid out of the assets of the fund, and thus are ultimately paid by the shareholders. Payments from each of these sources compensate financial advising firms and their personnel for providing a wide range of services, including the administering of shareholder records, processing transactions, training the advisers who sell the funds, and investor education. While fund firms assert that these services provide advisers and investors with valuable benefits, others, including regulators, criticize the lack of transparency in brokerage firm compensation, since it is practically impossible for investors to know precisely if, and how, financial advisers are paid out of fund assets.

Financial adviser compensation is often augmented by enhanced compensation arrangements, such as directed brokerage, soft dollar commissions, revenue sharing, and differential cash compensation, each of which has been the source of criticism in recent years, due to potential conflicts of interest inherent in the practices, and the lack of disclosure of the practices to investors. This paper examines the practices and recommends changes to reduce, if not eliminate, the potential harm to investors inherent in their use.

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11. Rule 12b was promulgated under the Securities Exchange Act of 1934 (codified as amended at 15 U.S.C. §§ 78a-lll (2005)) [hereinafter the Securities Exchange Act]. *See* discussion *infra* Part III.B for a detailed discussion of 12b-1 fees.

12. *See generally* Susan S. Krawczyk, *Compensation Practices for Retail Sales of Mutual Funds*, 4 J. INVESTMENT COMPLIANCE 27 (2004) (discussing compensation practices in detail).

II. ENHANCED COMPENSATION PRACTICES

A. Directed Brokerage

In directed brokerage arrangements, mutual funds channel trades to brokers who promise to promote those funds in exchange for commissions on the mutual fund's stock and bond transactions. Put another way, in directed brokerage, a mutual fund typically promises to buy a certain amount of brokerage services from a broker-dealer who in turn agrees to promote that mutual fund to investors. Critics level two charges against directed brokerage: (1) the practice can lead a broker to recommend mutual funds that are not in his client's best interest; and (2) it can lead a fund firm to select a broker based on increasing its sales, rather than on getting the best execution of its trades. That can lead to high trading costs being passed to fund shareholders.

As is discussed in Parts III.B and III.D.3 of this paper, the Securities and Exchange Commission (the "SEC") and the National Association of Securities Dealers, Inc. (the "NASD") banned the practice of directed brokerage in 2004, because of its potential for creating conflicts of interest by generating incentives for fund managers to direct fund transactions to firms who were encouraging sales of their funds, rather than to the firms that could provide the best execution or price on fund transactions.

B. Soft Dollar Practices

The SEC is currently examining the practice of soft dollar commissions. Soft dollars refer to an arrangement whereby fund managers direct fund trades through a particular brokerage firm in exchange for brokerage services, including investment research. Fund managers typically use soft dollar payments to pay for investment research because, by doing so, they are able to hide the costs of research in brokerage commissions, when those costs would ordinarily be paid out of fund assets. Transaction costs, including soft dollar commissions, are not included in a fund's expense ratio, because accounting principles dictate that they be included as part of the cost basis of securities purchased or subtracted from the net proceeds of securities sold.

For example, suppose Fund A pays for research by adding to its management fee, which is disclosed in the prospectus fee table. Fund B pays for the same research with soft dollars, commissions paid to the

brokerage firm providing the research. Those costs do not appear in the fee table. Instead, those costs are part of the fund's transactions costs, which are typically disclosed in the Statement of Additional Information ("SAI"). Thus, to most investors, Fund B appears to have a lower expense ratio than Fund A. In reality, the costs charged by the fund and paid by the investor are the same.

Supporters of the practice maintain that soft dollar payments benefit shareholders by giving small fund advisers access to valuable research, thereby enhancing the competitiveness and price efficiency of small mutual funds. Opponents criticize the lack of transparency and oversight in soft dollar arrangements. They also argue that soft dollar compensation can create conflicts of interest for fund managers, because the fund managers may be motivated to select brokers based on their research services rather than on the speed or price of trade execution for fund transactions.

There currently exists a safe harbor rule that allows fund managers to use client funds to purchase "brokerage and research services" for their managed accounts under certain circumstances without breaching their fiduciary duties to clients.[13] Under Section 28(e) of the Securities Exchange Act of 1934 as amended, mutual fund firms may pay higher than normally allowed commissions if the fund firm deems the higher commission is in the best interest of the fund.[14] If it participates in soft dollar practices outside the safe harbor, however, it may be subject to liability for breach of fiduciary duty to clients.

Critics of soft dollar practices have advocated repealing Section 28(e), or outlawing soft-dollar transactions altogether. Others have called for greater oversight and stricter definitions of what can and cannot be bought with soft dollars. As discussed in Part III.D.4 of this paper, the SEC has recently issued a release containing interpretative guidance as to which soft dollar practices are within the scope of the safe harbor established by Section 28(e).

C. Revenue Sharing and Shelf-Space Practices

Most, if not all, mutual funds make payments to brokerage firms that sell the funds' shares. As the SEC defines it, revenue sharing

13. *See* Securities Acts Amendments of 1975, Pub. L. No. 94–29, 89 Stat. 97 (1975).

14. *See id.*

occurs when a fund manager agrees to pay a brokerage firm cash compensation not otherwise disclosed in the prospectus fee table to promote the mutual fund to the broker's clients. This type of payment creates a clear conflict of interest by introducing a new factor for an investment adviser to consider—his or her company's own financial profit—when deciding which mutual funds to recommend to an investor. These payments are often referred to as buying "shelf space" at the broker-dealer firm. In some cases, the fund manager may describe those payments as reimbursing the brokerage firm for expenses it incurs in selling the shares. The payments, regardless of whether they are labeled reimbursements or otherwise, may give the brokerage firm a greater incentive to sell the shares of that fund or an affiliate, rather than the shares of funds that don't make such payments.

The SEC is reviewing the disclosure of these so-called revenue-sharing deals. Regulators are looking particularly closely at revenue sharing and shelf space arrangements because of the financial incentives they may create for brokers to recommend one fund over another.[15] While brokers argue that spotlighting a particular fund is no guarantee of sales, others say that compensating brokers for promoting a fund may not be in the best interest of the firms' clients.[16]

D. Differential Cash Compensation

Differential cash compensation is the practice of paying sales representatives higher cash compensation for sales of proprietary and "partnered funds." Proprietary funds are those offered by the sales representative's employer (e.g. brokerage firm or insurance company). Partnered funds are those offered by firms that have an agreement with the sales representative's employer to promote those funds in exchange for cash payments. According to Financial Research Corporation estimates, in 2003 the fifty largest fund companies in the United States paid securities firms roughly $1.5 billion annually to distribute their funds.[17]

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15. *See generally* CONFIRMATION REQUIREMENTS AND POINT OF SALE DISCLOSURE REQUIREMENTS FOR TRANSACTIONS IN CERTAIN MUTUAL FUNDS AND OTHER SECURITIES, AND OTHER CONFIRMATION REQUIREMENT AMENDMENTS, AND AMENDMENTS TO THE REGISTRATION FORM FOR MUTUAL FUNDS, 69 Fed. Reg. 6438-01, 6451 (Feb. 10, 2004).

16. *Id.*

17. Deloitte Development, *2005 Global Securities Industry Outlook: 2005 Top 10*

Differential cash compensation is currently not prohibited under applicable rules and regulations, but critics charge that, like other types of enhanced compensation arrangements, they create a potential conflict of interest when a securities firm recommends mutual funds and the commission relationship is not adequately disclosed to investors. Even if there is adequate disclosure, the potential conflict of interest remains, and investors must be aware of that.

III. THE EVOLUTION OF COMPENSATION PRACTICES

Compensation practices for mutual funds have evolved over time. Prior to 1980, compensation to the sellers of fund shares was primarily accomplished through front-end load charges. By the late 1990s, compensation arrangements generally entailed several methods, and the investor usually had a choice in the methods applied. The key change was the approval of 12b-1 plans, which allow for the payment of marketing and distribution expenses from fund assets. These plans allow for both different share classes within a particular fund, and the practice of revenue sharing.

A. A Brief History of Mutual Funds and National Association of Securities Dealers, Inc.

The first pooled funds were introduced in the United States in the 1890s.[18] In 1924, the Massachusetts Investors Trust became the first open-end mutual fund.[19] Shortly thereafter, in response to the 1929 stock market crash, Congress passed the Securities Act of 1933[20] and the Securities Exchange Act of 1934.[21] The 1933 and 1934 acts require, among other things, that investment funds be registered with the Securities and Exchange Commission and that prospective fund investors be provided with a prospectus. In 1934, Congress also passed

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Issues, at 5, *available at* http://www.deloitte.com/dtt/cda/doc/content/dtt_financialservices_topten2005-securities_013105(3).pdf (last visited Mar. 23, 2007).

18. K. Geert Rouwenhorst, *The Origins of Mutual Funds* 17 (Yale Sch. of Mgmt., Int'l Center for Fin., Working Paper No. 04-48, 2004), *available at* http://ssrn.com/abstract=636146 (last visited Mar. 23, 2007).

19. *Id.*

20. 15 U.S.C. §§ 77a-aa (2005).

21. 15 U.S.C. §§ 78a-lll (2005).

the National Industrial Recovery Act (the "NIRA").[22] The act called for industrial self-regulation and declared that codes of fair competition—for the protection of consumers, competitors, and employers—were to be drafted for the various industries of the country.[23] In 1935, the U.S. Supreme Court invalidated the compulsory-code system, ruling that the NIRA improperly delegated legislative powers to the executive and that the provisions of the poultry code at issue in the case did not constitute a regulation of interstate commerce.[24]

The the NASD grew out of the Investment Bankers Code Committee (the "IBCC") formed by the investment banking business under the NIRA.[25] When the NIRA was declared unconstitutional, the IBCC was continued on a voluntary basis, becoming the Investment Bankers Conference Committee, its function to be one of discussion and conference with federal agencies looking toward the establishment of an organization to preserve and formalize the values of the code.[26] A successor organization known as the Investment Bankers Conference, Inc. (the "IBC") was established to proceed more formally towards the objective of a legal entity empowered to administer rules promoting "high standards of commercial honor."[27] An important objective of the IBC was the development of a plan of self-regulation for over-the-counter markets.[28] By November of 1937, the SEC and an IBC governing committee prepared the draft of legislation to accomplish the self-regulatory objective.[29] The bill, known as the Maloney Act, was signed into law in 1938.[30] The NASD, the successor to the IBC, was registered by the SEC as a national securities association under section 15A of the 1934 Securities Exchange Act.[31]

The NASD is currently the world's leading private-sector provider of financial regulatory services. Under U.S. law, every securities firm

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22. Ch. 90, 48 Stat. 195 (1933).
23. *Id.*
24. Schechter Poultry Corp. v. United States, 295 U.S. 495, 550 (1935).
25. Fulton, Wallace H., *The Origin of the NASD, 1933-1939: The OTC Market's Venture Into Self-Regulation*, *at* http://www.people.hbs.edu/aperold/resource/ISR/Teaching%20Note/AKS%20-%20History%20of%20the%20NASD.doc (last visited Mar. 23, 2007).
26. *Id.*
27. *Id.*
28. *Id.*
29. *Id.*
30. *Id.*
31. Fulton, *supra* note 25, at 1.

doing business with the American public must register with NASD.[32] The NASD registers securities firms, writes rules to govern their behavior, examines them for compliance and, when necessary, brings enforcement actions against those who break those rules. Approximately 5,100 brokerage firms and more than 660,000 stockbrokers and registered representatives currently fall under the jurisdiction of the NASD.[33]

B. The Evolution of Rule 12b-1

In 1940, Congress enacted the Investment Company Act of 1940 (the "1940 Act"),[34] which is the principal statute under which the mutual fund industry is regulated today. The 1940 Act seeks to prevent abuses through mandating disclosure regarding an investment company's structure, operations, financial condition and policies when shares of the investment company are initially offered to the public and, thereafter, on a regular periodic basis.[35] Investment companies typically register their securities with the SEC under the 1933 Act and their companies under the 1940 Act.[36] Investment advisers use Form ADV to register as an investment adviser with the SEC.

The provisions in the 1940 Act govern, among other things, transactions between the investment company and its affiliates (e.g., investment advisers to the investment company), purchases and sales of investment company shares and the responsibilities of the investment company's directors or trustees.[37]

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32. NASD Rules and Regulations, *available at* http://www.nasd.com/Rules Regulation/index.htm?ssSourceNodeId=9 (last visited Mar. 27, 2007).

33. About NASD, *available at* http://www.nasd.com/AboutNASD/index.htm (last visited Mar. 16, 2007).

34. *See* 15 U.S.C. §§ 80a-1 to -64 (2005).

35. NASD website, *available at* http://www.nasd.com/web/idcplg?IdcService=SS_GET_PAGE&nodeId=608

36. Investment advisers use Form ADV to register with the SEC. Generally, an investment adviser that manages $25 million or more in client assets must register with the SEC. Advisers that manage less than $25 million must register with the state securities regulator where the adviser's principal place of business is located. Form ADV also is used for state registration. Form ADV has two parts. Part I contains information about the adviser's education, business and an adviser's disciplinary history within the last ten years. Part II includes information on an adviser's services, fees and investment strategies.

37. *See* NASD website, *supra* note 35.

The 1940 Act bans the use of fund assets to pay for the distribution of a fund's shares.[38] However, in the late 1970s, mutual funds experienced a significant and steady outflow of cash from redemptions of shares.[39] This left the remaining shareholders to pay the fixed costs of the funds as the costs were spread over fewer shareholders.

The fund industry lobbied for the use of fund assets to pay for distribution costs and persuaded the SEC to pass Rule 12b-1[40] in October 1980. The rule permits funds to pay the costs of marketing and distribution of fund shares as long as they are properly disclosed and regulated. The annual fee is included in the fund's reported expense ratio. Since 1980, the total of these fees has grown from a few million to over $10 billion in 2004.[41] This is due in part to the rapid growth of mutual fund assets, but is also due to the significant drop in front-end loads, both in terms of size (the typical load has dropped from 8% in 1980 to 5% today) and in terms of the percentage of funds which charge a front-end load.[42]

Although it was initially meant as a short-term solution to the high level of net redemptions in the 1970s, Rule 12b-1 is largely responsible for the class system of funds used today. A fund will often have various classes of shares that differ in their commission structures.[43] For example, one class might have a high initial sales commission and a small (usually .25%) annual fee paid for by a 12b-1 plan, while another class might have a small initial sales commission and a large (perhaps 1.0%) annual 12b-1 fee. The expense ratio of a fund typically includes three components: an advisory fee, administrative fee (such as legal and accounting costs) and 12b-1 fees. For multiple class shares, the advisory fee is always the same across classes. Administrative fees and 12b-1 fees can vary across classes although the administrative fee is often the same.

The selection of share class by an investor typically depends on the

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38. *Id.*

39. Lori Walsh, U.S. Securities and Exchange Commission, *The Costs and Benefits to Fund Shareholders of 12b-1 Plans: An Examination of Fund Flows, Expenses and Return*, at 6, *available at* http://ftp.sec.gov/rules/proposed/s70904/lwalsh042604.pdf. (last visited Mar. 19, 2007).

40. 17 C.F.R. § 270.12b-1 (2005).

41. INV. CO. INST., *How Mutual Funds Use 12b-1 Fees*, *Fundamentals: Investment Company Institute Research in Brief*, Vol. 14, No. 2, p. 2 (2005), *available at* http://www.ici.org/statements/fundamentals/fm-v14n2.pdf.

42. *Supra* note 4, at 4.

43. *Supra* note 39, at 5.

expected holding period. An investor with a short expected holding period might find it beneficial to buy shares with no up-front fee but high annual fees. A long-term investor does better with shares that have a large initial fee but small annual fees.

There are two important differences between load fees and 12b-1 fees besides the obvious one-time fee versus annual fee. First, they differ in the level of transparency. The load charge is clearly stated in the confirmation statement that the investor receives from the fund or the broker who sold the shares. On the other hand, the investor is never explicitly told the amount of the 12b-1 fees—it is neatly buried in the expense ratio. Second, loads are a fixed amount charged at the account level, and each investor pays only for his or her costs. 12b-1 fees are charged at the fund level, and investors may pay for other investors' costs. The aggregate amount that investors pay increases as their holding period increases and as the asset level rises. Because the fees are deducted at the fund level, some investors subsidize the costs of other investors. For example, small accounts typically cost more, as a percent of the account size, than large accounts; and yet both investors pay the same percent.

There is also a crucial difference between brokerage commissions and both load fees and 12b-1 fees in terms of transparency. Commissions are not even disclosed in the expense ratio. When the fund purchases a security the commission is added to the cost basis of the asset, and when a security is sold the commission is deducted from the proceeds of the sale. Assuming a security is bought and sold for a gain, the profit for shareholders is the net profit after deducting the commissions on both the purchase and the sale. The total of all commissions is disclosed as a lump sum (usually labeled as transactions costs) in the SAI which is typically delivered to a shareholder only if requested. Thus, directed brokerage payments and soft dollar commissions are quite unlikely to be uncovered by the vast majority of shareholders.

A recent survey by the Investment Company Institute (the "ICI") showed that funds use most of the 12b-1 fees to compensate financial advisers for assisting fund investors before and after they purchase fund shares.[44] Only a small fraction of the fees are used for advertising and promotion.[45] Thus, the primary use of revenues raised through 12b-1

44. *Supra* note 41, at 1.
45. *Id.*

fees is to create incentives for advisers to distribute the fund shares, making advisers the main beneficiaries of 12b-1 plans.

On August 14, 2004, the SEC adopted amendments to Rule 12b prohibiting the use of fund brokerage to compensate broker-dealers for selling fund shares.[46] New Rule 12b-1(h)(2) permits a fund to use brokers selling its shares to execute transactions in its portfolio securities only if the fund or its adviser has implemented policies and procedures designed to ensure that the selection of selling brokers for portfolio securities transactions is not influenced by considerations about the sale of fund shares.[47] The rule and correlating NASD Rule 2830(k) are discussed in further detail in Part III.D.3 of this paper.

C. Congressional Initiatives

The poor performance of mutual funds in the early 2000s, partially as a result of the collapse of the technology bubble and the slowdown in the world economy, led to intense scrutiny of the mutual fund industry by many, including Congress.[48] Criticism focused, in part, on the transparency of fund fees and costs, and specifically the practices of directed brokerage, revenue sharing and soft dollars.[49]

In early 2003, the House Subcommittee on Capital Markets, Insurance and Government Sponsored Enterprises held hearings on mutual fund practices, including mutual fund fee and cost disclosure issues, sales practices and governance. On June 11, 2003, Representative Richard H. Baker and twenty-three co-sponsors introduced H.R. 2420 (the "Mutual Fund Integrity and Fee Transparency Act of 2003").[50] Among other things, H.R. 2420 required the SEC to require disclosure of a number of items and required the adviser to submit an annual report to the fund directors on revenue sharing, directed brokerage and soft

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46. SEC Prohibition on the Use of Brokerage Commissions to Finance Distribution, 17 C.F.R. § 270 (2004), *available at* http://www.sec.gov/rules/final/ic-26591.htm.

47. *Id.*

48. *See* Thomas R. Smith, Jr., Sidley Austin Brown and Wood, *Mutual Funds Under Fire: Developments Since January 1, 2003* (Jul. 1, 2005), at 1, *available at* http://www.sidley.com/db30/cgi-bin/pubs/TRS%20Chronology%20-%20VERSION%2012%20070105.pdf.

49. *Id.*

50. Thomas R. Smith, Jr., *Mutual Funds Under Fire: Reform Initiatives,* 7 J. OF INV. COMPLIANCE 4 (2006).

dollars.[51] It imposed a fiduciary duty on the fund directors to supervise the arrangements.[52] H.R. 2420 also required brokers to disclose information about differential compensation and conflicts of interest associated with the broker's sale of a particular fund, along with information about commissions that may be charged based on the class of shares the investor has purchased.[53]

By mid-summer, however, efforts to pass H.R. 2420 had stalled.[54] The bill died for a lack of support in the House and the inability to even find a sponsor in the Senate. Instead, the House Subcommittee directed its efforts to having the SEC deal with the matters addressed by H.R. 2420 through rulemaking.[55]

Following market timing, late trading scandals, and subsequent prosecutions by New York Attorney General Eliot Spitzer, Congress renewed its efforts at mutual fund reform. The House passed a beefed up version of H.R. 2420 on November 19, 2003 by a vote of 418-2.[56] Among other things, H.R. 2420 contained additional detailed provisions regarding the disclosure of mutual fund fees, obligations regarding distribution and soft dollar arrangements.

The following bills were introduced in the Senate in the 108th Congress:

- S.1882, the "Mutual Fund Transparency Act of 2003" introduced on November 5, 2003 by Senator Daniel K. Akaka (D-HI);[57]
- S.1971, the "Mutual Fund Investor Confidence Restoration Act," introduced on November 25, 2003 by Senators Jon Corzine (D-NJ) and Christopher Dodd (D-CT);[58]
- S.1958, the "Mutual Fund Investors Protection Act," introduced on November 29, 2003 by Senators John Kerry (D-MA) and Edward Kennedy (D-MA);[59]

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51. *Id.*
52. *Id.*
53. *Id.*
54. *Id.*
55. *Id.*
56. *Supra* note 50.
57. S. 1822, 108th Cong., 2003, *available at* http://thomas.loc.gov/cgi-bin/query/z?c108:S.1822.
58. S. 1971, 108th Cong., 2003, *available at* http://thomas.loc.gov/cgi-bin/query/z?c108:S.1971.
59. S. 1958, 108th Cong., 2003, *available at* http://thomas.loc.gov/cgi-bin/query/z?c108:S.1958.IS.

- S.2509, the "Mutual Fund Reform Act of 2004," introduced on February 10, 2004 by Senators Peter Fitzgerald (R-IL), Carl Levin (D-MI) and Susan Collins (R-ME).[60]
- S.2497, the "Small Investor Protection Act of 2004," introduced on June 3, 2004 by Senator Joe Lieberman (D-CT).[61]

Each of the bills contained provisions to reform mutual fund sales practices by eliminating certain types of compensation arrangements, including 12b-1 fees, soft dollars, directed brokerage, and revenue sharing arrangements. None of the bills made it out of committee.

On May 16, 2005 Senator Daniel Akaka (D-HA) introduced S.1037, the "Mutual Fund Transparency Act of 2005," in the 109th Congress.[62] Among other things, the proposed bill requires broker point-of-sale disclosure regarding revenue sharing and differential cash compensation.[63]

D. Recent SEC and NASD Reforms

A wide range of mutual fund reform initiatives have also been undertaken by the NASD and SEC in the past few years, certain of which specifically address mutual fund enhanced compensation arrangements. These initiatives have resulted in significant changes in the way in which mutual funds, fund directors, and investment advisers do business.

1. Code of Ethics

On May 26, 2004, the SEC adopted a rule requiring registered investment advisers to establish, maintain, and enforce a written code of ethics.[64] Specifically, Rule 204A-1 requires that the code of ethics contain, at a minimum, a standard of business conduct that the adviser

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60. S. 2059, 108th Cong., 2003, *available at* http://thomas.loc.gov/cgi-bin/query/z?c108:S.2059.

61. S. 2497, 108th Cong. (2003), *available at* http://thomas.loc.gov/cgi-bin/query/z?c108:S.2497.

62. S. 1037, 109th Cong. (2003), *available at* http://thomas.loc.gov/cgi-bin/query/z?c109:S.1037.IS.

63. *Id.*

64. SEC Investment Adviser Code of Ethics, 17 C.F.R. §§ 270, 275, 279 (IA-2256) (2004), *available at* http://www.sec.gov/rules/final/ia-2256.htm.

requires of its "supervised persons" as defined in Section 202(a)(25) of the Investment Advisers Act of 1940.[65] The standard must reflect the fiduciary obligations of the investment adviser and supervised persons.

Although it might have gone without saying, the rule also specifically requires that supervised persons comply with applicable federal securities laws such as the Securities Act of 1933,[66] the Securities Exchange Act of 1934,[67] the Sarbanes-Oxley Act of 2002,[68] the Investment Company Act of 1940,[69] the Advisers Act,[70] Title V of the Gramm-Leach-Bliley Act,[71] and the Bank Secrecy Act.[72] Amendments to SEC Rule 204-2(a) also require SEC-registered investment advisers to retain as "required records" code of ethics violations and their disposition; records concerning personal securities transactions by certain advisory personnel; and evidence in the form of an acknowledgement that supervised persons received a copy of the code of ethics.[73]

As part of its adoption of new Rule 204A-1, the SEC also made an amendment to Form ADV, the form advisers use to register with the SEC.[74] The change requires investment advisers to describe their code of ethics on Schedule F of their registrations.[75] It also requires investment advisers to indicate that they will provide a copy to any client or prospective client upon request.[76]

2. Disclosure Requirements

On August 18, 2004, the SEC finalized new disclosure requirements for mutual funds.[77] The requirements became effective for

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65. 15 U.S.C. § 80b (2004).
66. 15 U.S.C. § 77a-aa (2005).
67. 15 U.S.C. § 78a-mm (2005).
68. Pub. L. 107-204, 116 Stat. 745 (2002).
69. 15 U.S.C. § 80a (2005).
70. 15 U.S.C. § 80b (2004).
71. Pub. L. No. 106-102, 113 Stat. 1338 (1999).
72. 31 U.S.C. §§ 5311-14; 5316-32 (2001).
73. *See generally* Investment Advisor Code of Ethics, *supra* note 64.
74. CONNECTICUT BANKING COMMISSION, *Investment Advisory Codes of Ethics* (Feb. 2005) *available at* http://www.ct.gov/dob/cwp/view.asp?a=2252&dobNAV_GID=162&q=299220.
75. *Id.*
76. *Id.*
77. SEC Disclosure Regarding Portfolio Managers of Registered Management

mutual fund registration filings after February 28, 2005.[78] The rules are designed to achieve increased information about fund portfolio managers, including their identity, incentives, potential conflicts of interest, other accounts they manage, compensation structure and ownership of securities in accounts they manage. Among others, the following disclosures are required:[79]

- A mutual fund must identify in its prospectus each individual who is a "portfolio manager."
- A mutual fund must provide information in its SAI regarding other accounts managed by any of its portfolio managers, including a description of any material conflicts of interest that may arise in connection with simultaneously managing the portfolio and other accounts.
- A mutual fund must disclose in its SAI the structure of, and the method used to determine, the compensation of each portfolio manager.
- A mutual fund must disclose each portfolio manager's ownership of securities in the fund. This disclosure is also to be made in the SAI.[80]

3. Directed Brokerage

Also on August 18, 2004, the SEC amended Rule 12b-1 to prohibit the practice of directed brokerage, a practice the Commission stated "poses significant conflicts of interests and may be harmful to funds and fund shareholders."[81] Rule 12b-1(h)(1) prohibits funds from compensating a broker-dealer for promoting or selling fund shares by directing brokerage transactions to that broker.[82] The prohibition applies both to directing transactions to selling brokers, and to indirectly compensating selling brokers by participation in "step-out" and related

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Investment Companies, 69 Fed. Reg. 33-8458 (Aug. 27, 2004) *available at* http://www.sec.gov/rules/final/33-8458.pdf.

78. *Id.*

79. *Id.*

80. *Id.*

81. *See* 17 C.F.R. § 240 (2004).

82. *Id.* at § 270.12b-1(h)(1). The rule prohibits funds from financing distribution of fund shares through the direction of any service related to effecting a fund brokerage transaction, including performing or arranging for the performance of any function related to processing a brokerage transaction. The prohibition reaches transactions executed by government securities dealers and municipal securities dealers.

arrangements whereby the selling broker receives a portion of the commission.[83] "The ban extends to any payment, including any commission, mark-up, mark-down, or other fee (or portion of another fee) received or to be received from the fund's portfolio transactions effected through any broker or dealer."[84]

From the broker-dealer's perspective, directed brokerage activities are subject to NASD Rule 2830(k).[85] Effective February 14, 2005, Rule 2830(k) was amended to prohibit the practice.[86] Prior to amendment, Rule 2830(k) prohibited NASD members from favoring the sale of shares of any investment company on the basis of brokerage commissions received or expected to be received from any source, including the investment company.[87] However, subparagraph (7)(B) of the rule allowed an NASD member, subject to the requirements of best execution, to sell the shares of, or act as an underwriter for, an investment company where that investment company "follows a policy, disclosed in its prospectus, of considering sales of shares of the investment company as a factor in the selection of broker/dealers to execute portfolio transactions . . . ."[88]

The NASD proposed to strike subparagraph (k)(7)(B) and add a new subparagraph, designated (k)(2), which will prohibit NASD members from selling the shares of, or acting as underwriter for, any investment company:

> [I]f the member knows or has reason to know that such investment company, or an investment adviser or principal underwriter of the company, has a written or oral agreement or understanding under which the company directs or is expected to direct portfolio securities transactions (or any commission, markup or other remuneration resulting from any such transaction) to a broker or a dealer in consideration for the promotion or sale of shares issued by the company or any other registered investment company.[89]

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83. *Id.* at § 270.12b-1(h)(1)(ii). The prohibition also extends to circumstances in which two funds cooperate to direct brokerage commissions to the selling broker of the other fund. *See* Section 48 under the Investment Company Act (making it unlawful for a person to do indirectly what the person could not do directly).

84. *See* 69 Fed. Reg. 33-8458.

85. NASD, R. 2830(k).

86. *See* Smith, *supra* note 50.

87. *Id.*

88. NASD, R. 2830(k)(7)(B).

89. Self-Regulatory Organizations; Notice of Filing of Proposed R. Change by

The NASD noted in its description of the proposed rule change that proposed new subparagraph (k)(2) "would add an objective proscription, in that the broker-dealer's intent to favor or disfavor a particular fund would not be relevant to that prohibition."[90] In approving the amendment in December of 2004, the SEC noted that "[o]ne important purpose of Rule 2830(k) is to help eliminate conflicts of interest in the sale of investment company securities, and the proposed rule change will improve NASD's ability to achieve this objective." [91]

The SEC, NASD, and certain states have actively brought enforcement proceedings against firms engaged in directed brokerage activities. In 2005, the NASD set records for the number of new enforcement actions brought and the amount of fines collected for violation of the directed brokerage rules.[92] That year, the NASD settled twenty-seven cases against retail firms for providing preferential treatment to select mutual funds in exchange for brokerage business, in violation of its Anti-Reciprocal Rule. In total, the firms paid nearly $55 million in fines.[93]

4. Soft Dollar Practices

As discussed in Part II.B. below, Section 28(e) of the 1934 Act provides a "safe harbor" allowing fund managers to use client funds to purchase "brokerage and research services" for their managed accounts under certain circumstances. On July 18, 2006, the SEC published final interpretive guidance ("The Release") regarding the use of "soft dollars."[94] The Release clarifies the circumstances under which fund managers may use client commissions to pay for brokerage and research

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Nat'l Ass'n of Securities Dealers, Inc. Relating to Investment Company Portfolio Transactions, 69 Fed. Reg. 64609 (proposed Sept. 17, 2004).

90. *Id.* at 64611 n.5.

91. *Id.* at 64611.

92. News Release, NASD, *NASD: 2005 in Review* (Dec. 27, 2005), *available at* http://www.nasd.com/PressRoom/NewsReleases/2005NewsReleases/NASDW_015794.

93. *Id.*

94. Guidance Regarding Client Commission Practices Under Section 28(e) of the Securities Exchange Act of 1934, 17 C.F.R. § 241 (2006), Exchange Act Release No. 34-54165, File No. S7-13-06 (July 24, 2006), *available at* http://www.sec.gov/R.s/interp/2006/34-54165.pdf. The Release affirms most of the positions taken by the Commission in the proposed release issued in October 2005 (the Proposed Release) and is intended to replace Sections II and III of the Commission's 1986 interpretive release (the 1986 Release) but is not intended to replace any other section of the 1986 Release.

services under the soft dollars safe harbor and specifically addresses four issues: (1) when do "brokerage or research services" fall within the safe harbor, (2) what constitutes "eligible research," (3) what constitutes "eligible brokerage services" and (4) what is the appropriate treatment for "mixed-use" items.[95] The Release sets forth a three-part test to determine whether brokerage and research services fall within the safe harbor. They must: (1) acquire "eligible" research products and brokerage services, (2) use those products and services lawfully and appropriately and (3) make a good-faith determination that the commissions they are paying are reasonable in light of the value of the products and services they are receiving.[96]

Significantly, the Release denotes a departure with respect to equipment, such as computer hardware, now considered outside the safe harbor, even if used in connection with research.[97] It also definitively excludes "mass-marketed publications" from safe harbor eligibility.[98] Additionally, the SEC has articulated an interpretative standard under which products and services not clearly constituting research are eligible for the safe harbor if they "reflect the expression of reasoning or knowledge relating to" the components of the definition of research in Section 28(e)(3).[99]

IV. CODES OF ETHICS AND OTHER STANDARDS GOVERNING SELLERS OF MUTUAL FUNDS

In addition to being governed by SEC and NASD regulations, many financial advisers, whether broker-dealers, financial planners, insurance agents, or bank representatives, are members of professional organizations and subscribe to a particular code of ethics. Typically, these codes have disclosure and conflict of interest provisions, many of which are relevant to the retail sale of mutual funds. Financial advisers, thus, are subject to scrutiny from several quarters. It is hoped that if dubious practices are employed by any type of financial adviser, and reported, at least one of the institutions having oversight will recognize the inappropriate nature of the practice and take action to stop it. Given the recent mutual fund scandals and number of prosecutions for

95. *Id.* at 21.
96. *Id.* at 26.
97. *Id.* at 6.
98. *Id.*
99. *Id.*

violations of mutual fund rules, the effectiveness of self-policing by these institutions has been called into question of late.[100]

A. Certified Financial Planners

Certified Financial Planners ("CFPs") operate under the *Code of Ethics and Professional Responsibility and Financial Planning Practice Standards* adopted by Certified Financial Planner Board of Standards, Inc. (the "CFP Board"). According to the CFP Board, all persons whom it has recognized and certified to use the CFP designation are obligated "not only to comply with the mandates and requirements of all applicable laws and regulations but also to take responsibility to act in an ethical and professionally responsible manner in all professional services and activities."[101]

The CFP Code of Ethics consists of two parts: Part I consists of the Principles and Part II the Rules.[102] The Principles are "statements expressing in general terms the ethical and professional ideals that CFP Board designees are expected to display in their professional activities."[103] The seven articulated principles are: (1) Integrity, (2) Objectivity, (3) Competence, (4) Fairness, (5) Confidentiality, (6) Professionalism, and (7) Diligence.[104] The CFP Board describes the Principles as "aspirational in character," but "intended to provide a source of guidance" for CFPs, and comments follow each Principle and further explain the meaning of the Principle.[105] The Principles are

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100. Beginning in 2003, many of the biggest fund companies, including Janus Capital Group Inc. and Invesco Funds Group Inc., were charged by regulators with allowing some investors to make unorthodox trades that hurt the funds' long-term shareholders. At the same time, Wall Street firms were charged with withholding commission discounts from mutual-fund investors who had been eligible for the discounts. *See* Eleanor Laise, *How to Check Up on Your Mutual Fund—New Web Tools Help Investors Take Advantage of Flood of Data Now Required by Regulators*, WALL ST. J., Dec. 14, 2005, at D1 (discussing the ability of consumers to monitor mutual fund institutions).

101. Certified Fin. Planner Bd. of Standards, *Code of Ethics and Professional Responsibility*, *available at* http://www.cfp.net/learn/ethics.asp (last visited Mar. 23, 2007).

102. *Id.*

103. *Id.*

104. Certified Fin. Planner Bd. of Standards, *Code of Ethics and Professional Responsibility: Principles*, *available at* http://www.cfp.net/learn/ethicsPrinc.s.asp (last visited Mar. 23, 2007).

105. *See Code of Ethics and Professional Responsibility*, *supra* note 101.

accompanied by rules that "describe the standards of ethical and professionally responsible conduct expected of [CFPs] in particular situations."[106]

For example, Principle 1—"Integrity"—states: "*A CFP Board* designee shall offer and provide professional services with integrity."[107] The comments to the principle maintain, inter alia, that "[i]ntegrity demands honesty and candor which must not be subordinated to personal gain and advantage."[108] Coordinating Rule 102 requires that, "[i]n the course of professional activities, a CFP Board designee shall not engage in conduct involving dishonesty, fraud, deceit or misrepresentation, or knowingly make a false or misleading statement to a client, employer, employee, professional colleague, governmental or other regulatory body or official, or any other person or entity."[109]

Principle 4—"Fairness"—and the accompanying Rules are especially relevant to the retail sale of mutual funds and the potential conflicts of interest herein addressed. It requires that CFPs perform their professional services "in a manner that is fair and reasonable to clients, principals, partners and employers, and shall disclose conflict(s) of interest in providing such services." [110] The comments state:

> Fairness requires impartiality, intellectual honesty and disclosure of conflict(s) of interest. It involves a subordination of one's own feelings, prejudices and desires so as to achieve a proper balance of conflicting interests. Fairness is treating others in the same fashion that you would want to be treated and is an essential trait of any professional.[111]

Rule 402 requires a CFP in a "financial planning engagement [to make] timely written disclosure of all material information relative to the professional relationship." [112] Further, "in all circumstances and prior to the engagement," the CFP must disclose in writing conflict(s) of

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106. *Id.*

107. *Supra* note 104.

108. *Id.*

109. Certified Fin. Planner Bd. of Standards, *Code of Ethics and Responsibility: Rules*, http://www.cfp.net/learn/ethicsR.s.asp (visited last Mar. 23, 2007).

110. *See Code of Ethics and Professional Responsibility: Principles*, *supra* note 104, at 4.

111. *Id.*

112. *Code of Ethics and Responsibility: Rules, supra* note 109, at R. 402.

interest and sources of compensation.[113] The CFP must also "inform the client or prospective client of his/her right to ask at any time for information about the compensation of the [CFP]."[114]

There exists a safe harbor provision for CFPs who provide clients or prospective clients with certain written disclosures using SEC Form ADV or similar disclosure documents. The form must include:

- A statement that in reasonable detail discloses (as applicable) conflict(s) of interest and source(s) of, and any contingencies or other aspects material to, the CFP Board designee's compensation;
- A statement describing material agency or employment relationships a CFP Board designee (or firm) has with third parties and the nature of compensation resulting from such relationships; and
- A statement informing the client or prospective client of his/her right to ask at any time for information about the compensation of the CFP Board designee.[115]

Rule 403 of the CFP Code of Ethics states that "[u]pon request by a client or prospective client, the [CFP] in a financial planning engagement shall communicate in reasonable detail the requested compensation information related to the financial planning engagement, including compensation derived from implementation."[116] Rule 404 mandates that disclosures required under Rule 402 shall be offered at least annually for current clients, and provided if requested.[117]

Principle 6 – "Professionalism" – bears upon the matter of self-policing. It states that "[a CFP's] conduct in all matters shall reflect credit upon the profession."[118] Generally, Rule 603 requires the CFP who has "non-confidential knowledge" (defined as "no substantial doubt") that another CFP Board designee has committed a violation of the CFP Code of Ethics "which raises substantial questions as to the designee's honesty, trustworthiness or fitness" to promptly inform the CFP Board.[119] Rule 604 requires the CFP with non-confidential

113. *Id.*
114. *Id.*
115. *Id.*
116. *Id.* at R. 403.
117. *Code of Ethics and Responsibility: Rules*, *supra* note 109, at R. 404.
118. *Code of Ethics and Professional Responsibility: Principles*, *supra* note 104, at Princ. 6.
119. *Code of Ethics and Responsibility: Rules*, *supra* note 109, R. 603.

knowledge which raises a substantial question of unprofessional, fraudulent or illegal conduct by another CFP or other financial professional to "promptly inform the appropriate regulatory and/or professional disciplinary body."[120] Rule 605 requires the CFP who has reason to suspect illegal conduct within his or her organization to "make timely disclosure of the available evidence" to his or her "immediate supervisor and/or partners or co-owners."[121] Further, "if the [CFP] is convinced that illegal conduct exists within [his own] organization, and that appropriate measures are not taken to remedy the situation, the [CFP] shall, where appropriate, alert the appropriate regulatory authorities . . . in a timely manner."[122]

The CFP Code has formal disciplinary procedures in place and several possible forms of discipline defined. The disciplinary procedures were designed to ensure a fair and reasonable process. The steps in that process are:

(1) Receipt of a written request for investigation.
(2) Investigation of the complaint by CFP Board Staff Counsel.
(3) Determination of probable cause by CFP Board Staff Counsel.
(4) Formation of a hearing panel to review all evidence from both sides.
(5) Submission of hearing panel findings to the Board of Professional Review, which renders a decision.
(6) The aggrieved may petition the decision to the Board of Appeals.[123]

The possible forms of discipline are: a private written censure, a public letter of admonition, suspension for up to five years, and permanent revocation of the CFP designation.[124] Notably, the CFP Board recently proposed significant changes to its Code of Ethics and Professional Responsibility and Financial Planning Practice Standards, including:

- Elimination of the written notice informing clients of their right to ask at any time for information about the CFP's sources of compensation, and an annual offer of disclosure

120. *Id.* at R. 604.
121. *Id.* at R. 605.
122. *Id.*
123. Certified Fin. Planner Bd. of Standards, *Disciplinary Procedures: Disciplinary Process and Procedures*, *available at* http://www.cfp.net/learn/procedures.asp (last visited Mar. 23, 2007).
124. *Id.* at Forms of Discipline.

of important information about the CFP;

- Elimination of a current requirement that CFPs report infractions of the *Code of Ethics* by other CFPs; and
- Creation of a new fiduciary standard for all certificants, but allowing use of a lower standard if set forth in the client agreement.[125]

The comment period ended September 25, 2006.[126]

B. Financial Planning Association

The Financial Planning Association (FPA) was created by the union of the International Association for Financial Planning (IAFP) and the Institute of Certified Financial Planners (ICFP).[127] The FPA's "individual members include financial planners, accountants, attorneys, bankers, charitable giving specialists, insurance agents, stockbrokers, money managers, investment consultants, broker-dealer and corporate executives, and others."[128] The FPA has nearly 30,000 financial planners, allied professionals and organizations that advance the financial planning process.[129] Members of the FPA are mandated to adhere to the FPA Code of Ethics.[130] The "FPA's Ethics Committee is charged by its Board of Directors with reviewing alleged violations of the FPA Code of Ethics and advising staff on ways to enhance awareness by FPA members of their obligations under the Code."[131]

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125. *See generally* Certified Fin. Planner Bd. of Standards, *Exposure Draft*, *available at* http://www.cfp.net/Downloads/Attachment_A.pdf (last visited Mar. 27, 2007); *see generally* Certified Fin. Planner Bd. of Standards, *Exposure Draft Overview*, *available at* http://www.cfp.net/Downloads/Overview.pdf (last visited Mar. 27, 2007). For Financial Planning Association member comments regarding the CFP proposed changes *see* Financial Planning Association website *at* http://www.fpanet.org/member/ethicsresponse.cfm (last visited Mar. 27, 2007).

126. Certified Fin. Planner Bd. of Standards, *Exposure Draft of Proposed Revisions to CFP Board's Ethical Standards: Comment Period Ends Sept. 25, 2006*, CFP Bd. News (Sept. 7, 2006) *available at* http://www.cfp.net/certificants/boardreport_9_2006.asp.

127. Fin. Planning Ass'n, *FPA Overview*, *available at* http://www.fpanet.org/global/about/overview.cfm (last visited Mar. 23, 2007).

128. Fin. Planning Ass'n, *About FPA*, *available at* http://www.fpanet.org/member/about/index.cfm (last visited Mar. 23, 2007).

129. Fin. Planning Ass'n, *Institutional Membership, available at* http://www.fpanet.org/member/membership/corporate/instindex.cfm (last visited Mar. 23, 2007).

130. *Supra* note 128.

131. *See* Fin. Planning Ass'n, Code of Ethics, http://www.fpanet.org/member

According to the FPA, its guidelines capture the essence of the Certified Financial Planners Board of Standards Code, addressed above, but make the FPA Code applicable to all FPA members whether or not they are also CFPs.[132] It employs the same seven principles, but does not include the associated rules that the CFP Code puts forth.[133]

C. Chartered Financial Analyst Institute[134]

The Chartered Financial Analyst Institute (the "CFA Institute") includes 89,981 individual voting members in 130 countries.[135] Individual members either hold the Chartered Financial Analyst (the "CFA") designation or are active in the investment business.[136] All members must abide by the CFA Institute's Code of Ethics and Standards of Professional Conduct.[137] The latest Code of Ethics and Standards of Professional Conduct became effective January 1, 2006.[138] Violations may result in disciplinary sanctions by the CFA Institute:[139]

> All alleged violations of the code and standards are investigated by the designated officer (a regular member of CFA Institute appointed by the CFA Institute Board of Governors). Upon completion of an investigation, if the designated officer determines a violation of the code and standards occurred, the designated officer recommends a disciplinary sanction. The [CFA] member . . . may accept the designated officer's recommendation or proceed to a Hearing Panel.[140]

Potential sanctions include revocation of membership and the right

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/about/Princ.s/ethics.cfm (last visited Mar. 23, 2007).

132. *Id.*

133. *Id.* at Princ. 1.

134. Formerly known as the Association for Investment Management and Research.

135. CFA Institute, *About Us,* http://www.cfainstitute.org/aboutus/index.html (last visited Mar. 23, 2007).

136. CFA Inst., *About Us: Membership*, http://www.cfainstitute.org/aboutus/overview/index.html (last visited Mar. 23, 2007).

137. *Id.*

138. CFA Inst., *Code of Ethics and Standards of Professional Conduct*, http://www.cfainstitute.org/centre/ethics/code (last visited Mar. 23, 2007).

139. CFA Inst., CODE OF ETHICS AND STANDARDS OF PROFESSIONAL CONDUCT: PREAMBLE, http://www.cfainstitute.org/centre/ethics/code/pdf/english_code.pdf (last visited Mar. 23, 2007).

140. CFA Inst., *Disciplinary Procedures: Procedure*, http://cfainstitute.org/aboutus/conduct/complaint/discipline.html (last visited Mar. 23, 2007).

to use the CFA designation.[141]

The CFA Institute Code of Ethics requires members to:

- Act with integrity, competence, diligence, respect, and in an ethical manner with the public, clients, prospective clients, employers, employees, colleagues in the investment profession, and other participants in the global capital markets.[142]
- Place the integrity of the investment profession and the interests of clients above their own personal interests.[143]
- Use reasonable care and exercise independent professional judgment when conducting investment analysis, making investment recommendations, taking investment actions, and engaging in other professional activities.[144]
- Practice and encourage others to practice in a professional and ethical manner that will reflect credit on themselves and the profession.[145]
- Promote the integrity of, and uphold the rules governing, capital markets.[146]
- Maintain and improve their professional competence and strive to maintain and improve the competence of other investment professionals.[147]

There are seven sections of the CFA Institute Standards of Professional Conduct: I. Professionalism; II. Integrity of Capital Markets; III. Duties to Clients; IV. Duties to Employers; V. Investment Analysis, Recommendations, and Action; VI. Conflicts of Interest; and VII. Responsibilities as a CFA Institute Member or CFA Candidate.[148] As its name suggests, Section VI is particularly applicable to the retail sale of mutual funds and the conflicts of interest addressed in this paper, especially subsections A and C:

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141. *Id.*

142. CFA Inst., CODE OF ETHICS AND STANDARDS OF PROFESSIONAL CONDUCT: THE CODE OF ETHICS, *available at* http://www.cfainstitute.org/centre/ethics/code/pdf/english_code.pdf (last visited Mar. 23, 2007).

143. *Id.*

144. *Id.*

145. *Id.*

146. *Id.*

147. *Id.*

148. *Supra* note 142.

> A. Disclosure of Conflicts. Members and Candidates must make full and fair disclosure of all matters that could reasonably be expected to impair their independence and objectivity or interfere with respective duties to their clients, prospective clients, and employers. Members and Candidates must ensure that such disclosures are prominent, are delivered in plain language, and communicate the relevant information effectively.[149]
>
> . . . .
>
> C. Referral Fees. Members and Candidates must disclose to their employer, clients, and prospective clients, as appropriate, any compensation, consideration, or benefit received from, or paid to, others for the recommendation of products or services.[150]

D. American Institute of Certified Public Accountants

Certified Public Accountants (CPAs) are bound by the *Code of Professional Conduct of the American Institute of Certified Public Accountants*. Like the CFP Code, the American Institute of Certified Public Accountants (AICPA) Code consists of two sections: (1) the Principles; and (2) the Rules.[151] The Principles provide the framework for the Rules that govern the performance of professional services by members.[152] "Compliance with the Code of Professional Conduct . . . depends primarily on members' understanding and voluntary actions, secondarily on reinforcement by peers and public opinion, and ultimately on disciplinary proceedings, when necessary, against members who fail to comply with the Rules."[153] The Rule most relevant to compensation for mutual fund sales is 503(b) which requires a member in public practice who is not prohibited from receiving commissions and "who is paid or expects to be paid a commission, [to] disclose that fact to any person or entity to whom the member recommends or refers a product or service to which the commission

149. *Id.* at VI. Conflicts of Interest.

150. *Id.*

151. Am. Inst. of Certified Pub. Accountants, AICPA CODE OF PROFESSIONAL CONDUCT: COMPOSITION, APPLICABILITY, AND COMPLIANCE (2006), *available at* http://www.aicpa.org/About/code/comp.htm.

152. *Id.*

153. *Id.*

relates."[154] Other similar professional organizations include the Institute of Certified Bankers and the National Association of Insurance and Financial Advisors (LUTC, FSS, ChFC, and CLU designations).

V. RECOMMENDATIONS FOR CHANGE

The SEC, NASD, Congress, and the mutual fund industry are investigating ways to provide better and more standardized disclosure of mutual fund fees and expenses. Many experts argue that clearer disclosure of fund fees will not only help investors make better-informed decisions, but will improve price competitiveness within the industry.

In early 2004, the NASD formed the Mutual Fund Task Force to consider issues relating to distribution arrangements, portfolio transaction costs, and soft dollar payments.[155] The Task Force was comprised of industry executives representing mutual fund management companies and broker-dealers, and representatives of the academic and legal communities.[156] The Task Force concluded that,

> [m]any of the developments in distribution payments since the adoption of Rule 12b-1 have benefited investors by allowing them to choose to pay distribution costs up-front, over time, or when fund shares are redeemed. At the same time, the variety and complexity of these choices, and the fact that many distribution costs are incurred at the fund level, may tend to obscure the extent of these costs and the incentives that they may create.[157]

The Task Force suggested "that the most important changes that the [SEC] should consider are those that make the costs and potential conflicts associated with mutual fund distribution more visible to the retail investor."[158] The Task Force also recommended that visibility be increased by the requirement that a short, easy-to-understand document be made available to investors at the point of sale.[159] Dubbed the

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154. Am. Inst. of Certified Pub. Accountants, AICPA CODE OF PROFESSIONAL CONDUCT R. 503(b) (2006), *available at* http://www.aicpa.org/about/code/sec500.htm.

155. NASD, REPORT OF THE MUTUAL FUND TASK FORCE: MUTUAL FUND DISTRIBUTION 1, *available at* http://www.nasd.com/web/groups/R.s_regs/documents/R.s_regs/nasdw_013690.pdf (last visited Mar. 27, 2007).

156. *Id.*

157. *Id.* at 2.

158. *Id.*

159. *Id.*

"Profile Plus,"[160] it is a two-page document that includes key characteristics of the fund and all fees and expenses of the fund, including the costs and potential conflicts associated with mutual fund distribution.[161]

Page one contains a statement describing the fund's principal investment strategies and principal investment risks.[162] It also includes charts detailing the fund's total return over the past ten years, "and a chart that shows average annual return of the fund over the past 1-, 5-, and 10-year periods."[163] Page two focuses on "the costs associated with fund ownership and possible conflicts of interest."[164] It includes a "Fees and Expenses" table that would "show the total fees and expenses paid by a shareholder - both transaction fees and fund operating expenses - based on the fund's current prospectus."[165] The costs are to be presented both in dollars and as a percentage, based on hypothetical investments of $1,000, $50,000 and $100,000.[166] In addition, the fund's total "operating expenses is not to be presented as a single number, and not broken down into components."[167] The Task Force believes that investors are interested mainly in the total amount of fees they pay rather than in a detailed breakdown of the various components.[168] Page two also provides an explanation of "portfolio transaction costs and portfolio turnover rates."[169]

Another major section on page two is titled "Potential Conflicts of Interest."[170] It provides information about revenue sharing and differential compensation arrangements through two "yes/no" questions.[171] The first is, "Does the fund or its affiliates pay XYZ Firm extra to promote this Fund over other similar funds?"[172] If the answer is yes, an investor can click on a hyperlink to additional information about

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160. *Id.*
161. NASD, *supra* note 155, at 6.
162. *Id.*
163. *Id.* at 7.
164. *Id.*
165. *Id.*
166. *Id.*
167. NASD, *supra* note 155, at 7.
168. *Id.* at 8. It should be noted that shareholders who are interested in a breakdown can find it in the prospectus.
169. *Id.* at 9.
170. *Id.*
171. *Id.*
172. *Id.*

the revenue sharing payments received by the broker/dealer.[173] The second question is, "Does XYZ Firm pay its personnel more for selling this Fund than for selling other similar funds?"[174] Again, if the answer is yes, the investor can access a hyperlink to additional information about the differential compensation arrangements that the broker-dealer has with its registered representatives.[175]

The Task Force also recommended that all broker-dealers be required to provide the Profile Plus, dealer disclosure statement, and the fund's prospectus on their web sites.[176] It further recommended that a registered representative refer the investor to the Profile Plus at the time that the representative makes a recommendation to invest in a particular fund, stating that the Profile Plus contains important information concerning costs and potential conflicts of interest.[177] In November 2004, the Commission proposed an "access equals delivery" approach to prospectus delivery, under which investors would be presumed to have access to the internet, and issuers and intermediaries could satisfy their delivery requirements by posting the required information on their websites.[178]

VI. CONCLUSION

It is obvious that something needs to be done to eliminate, or at least to reduce, the conflicts of interest that have been created by revenue sharing, directed brokerage, differential compensation, and soft dollar commissions. It appears there are two alternatives, either to make the practices illegal, as the SEC recently did with directed brokerage, or to make those practices more transparent, so that investors are aware of the potential for conflicts of interest. The Profile Plus document developed and recommended by the NASD's Mutual Fund Taskforce does a good job of divulging the information that investors need in order to uncover and understand the potential conflicts.

The approval of 12b-1 fees in 1980 made revenue sharing and differential compensation possible. It also led to the formation of different classes of mutual fund shares, which allows investors to choose

173. NASD, *supra* note 155, at 9.
174. *Id.* at 10.
175. *Id.*
176. *Id.* at 10-11.
177. *Id.* at 11.
178. *Id.* at 13.

the way they pay the fees associated with mutual fund investment. That represents an advantage for potential shareholders, which we feel overcomes the associated costs, and the conflicts of interest for financial advisers. Certainly those practices need to be disclosed to a greater extent, and the Profile Plus does that.

Both directed brokerage and soft dollar payments involve payments to brokerage firms in the form of commissions for executing portfolio transactions in exchange for recommending the funds to clients or for providing services (most commonly investment research). These payments are thus hidden in the overall transaction costs of the fund, and would not be apparent to the vast majority of investors. On the other hand, revenue sharing and differential cash compensation are part of the fund's 12b-1 plan, and are clearly payments made in exchange for recommending the fund to investors.

Each of the four practices involves the potential for conflicts of interest, but in directed brokerage and soft dollar payments, the payments are made in the form of commissions and it is difficult to separate the part of the commission that represents payment for recommending the fund from the payment for the execution of trades. With revenue sharing and differential compensation, there is no question as to what the payments represent. Thus the potential conflict of interest is more transparent.

Some feel, however, that disclosure is not enough. In 2004, Senator Carl Levin (D-Michigan) stated,

> Even if an investor is clearly told that his or her broker is getting paid to promote a mutual fund, the investor is left wondering whether the broker's recommendation is based on the mutual fund's merits or the broker's financial benefit. Disclosure does not resolve the conflict; it allows revenue sharing payments to continue to undermine objective investment advice. The better course of action is to ban revenue sharing from the mutual fund marketplace.[179]

Our feeling is that if an investor is "left wondering" whether the broker's recommendation is unbiased, he or she should raise the issue with the broker. If the broker's response is unsatisfactory, the investor should find another broker. If a sufficient number of investors do this,

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179. *Ending Conflicts of Interest at Mutual Funds: The Mutual Fund Reform Act: Hearing Before the Senate Committee on Banking, Housing and Urban Affairs*, 108th Cong. (2004) (statement of Sen. Carl Levin), *available at* http://www.senate.gov/~levin/newsroom/release.cfm?id=219868.

revenue sharing will be eliminated from the marketplace by making the funds and brokers who engage in the practice uncompetitive with those that do not.

Our recommendations are for soft dollar commissions to be eliminated, just like directed brokerage. Those costs are too easily hidden from investors. But revenue sharing and differential compensation should be allowed to continue as long as the Profile Plus and the associated recommendations of the taskforce are implemented. While it is tempting to recommend outlawing those practices as well because they do create the potential for conflicts of interest, we feel the transparency of those practices makes their cost acceptable, given the benefit that different classes of funds provide in allowing investors to choose the way that they pay the costs associated with mutual fund investment.

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TECHNICAL REPORT

Investor and Industry Perspectives on Investment Advisers and Broker-Dealers

Angela A. Hung, Noreen Clancy, Jeff Dominitz, Eric Talley, Claude Berrebi, Farrukh Suvankulov

Sponsored by the United States Securities and Exchange Commission

RAND INSTITUTE FOR CIVIL JUSTICE

LRN-RAND Center for Corporate Ethics, Law, and Governance

The research described in this report was conducted by the LRN-RAND Center for Corporate Ethics, Law, and Governance within the RAND Institute for Civil Justice and commissioned by the U.S. Securities and Exchange Commission (SEC).

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1200 South Hayes Street, Arlington, VA 22202-5050
4570 Fifth Avenue, Suite 600, Pittsburgh, PA 15213-2665
RAND URL: http://www.rand.org
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Preface

In recent years, the evolution of the financial service industry has blurred traditional distinctions between broker-dealers and investment advisers and made it difficult to design appropriate regulatory schemes for their professional services. To better understand the industry's dynamics and its effects on individual investors, the U.S. Securities and Exchange Commission (SEC) commissioned RAND to conduct a study of broker-dealers and investment advisers from two perspectives: first, examine investment advisers' and broker-dealers' practices in marketing and providing financial products and services to individual investors; and second, evaluate investors' understanding of the differences between investment advisers' and broker-dealers' financial products and services, duties, and obligations.

The research on which this document reports was conducted within the LRN-RAND Center for Corporate Ethics, Law, and Governance within the RAND Institute for Civil Justice.

The LRN-RAND Center for Corporate Ethics, Law, and Governance

The LRN-RAND Center for Corporate Ethics, Law, and Governance is committed to improving public understanding of corporate ethics, law, and governance and to identifying specific ways in which businesses can operate ethically, legally, and profitably at the same time. The center's work is supported by voluntary contributions from private-sector organizations and individuals with interests in research on these topics.

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Robert Reville, Director
RAND Institute for Civil Justice
1776 Main Street, P.O. Box 2138
Santa Monica, CA 90407-2138
310-393-0411 x6786
Fax: 310-451-6979
Email: Robert_Reville@rand.org

Michael Greenberg, Research Director
LRN-RAND Center for Corporate Ethics, Law, and Governance
4570 Fifth Avenue, Suite 600
Pittsburgh, PA 15213-2665
412-683-2300 x4648
Fax: 412-683-2800
Email: Michael_Greenberg@rand.org

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Executive Summary

The financial service industry is at a crossroads regarding its regulatory and legal status. As the industry has become more complex, it has become increasingly difficult for regulators to design regulations that govern the different financial services available in this market. In theory, financial professionals are relatively distinct: A *broker* is defined as someone who conducts transactions in securities on behalf of others; a *dealer* is defined as someone who buys and sells securities for his or her own accounts; and an *investment adviser* is defined as someone who provides advice to others regarding securities. Broker-dealers and investment advisers are subject to different federal regulations: The Securities Exchange Act of 1934 (48 Stat. 881) regulates brokers and dealers, and the Investment Advisers Act of 1940 (54 Stat. 847) regulates investment advisers.

In light of these differences in definitions and regulations, the dividing line between broker-dealers and investment advisers has always been an important one. However, trends in the financial service market since the early 1990s have blurred the boundaries between them. Firms are constantly evolving and bundling diverse products and services in response to market demands and the regulatory environment. Although the SEC has attempted to clarify the boundaries between broker-dealers and investment advisers—first in a 1999 proposed rule that was then modified and became the 2005 rule, "Certain Broker-Dealers Deemed Not to Be Investment Advisers" (SEC, 2005)—the regulation was challenged and eventually overturned.

During the rule-making process, the SEC received more than 1,700 letters from financial professionals, investors, and consumer groups expressing concerns about what investors understand about the differences between brokerage and advisory accounts, the legal obligations of each type of account, and the effect of titles and marketing on investor expectations. As a result, the SEC recognized that any future regulatory reform would have to be based on a clearer understanding of the industry's complexities, including the changing business practices of broker-dealers and investment advisers and how investors perceive these practices. In response, the SEC commissioned RAND to conduct this study.

Study Purpose and Approach

The main purpose of this study was to provide the SEC with a factual description of the current state of the investment advisory and brokerage industries for its evaluation of the legal and regulatory environment concerning investment professionals. This study did not evaluate the

legal or regulatory environment itself; nor does this resulting report make policy recommendations. Specifically, the study addressed two primary questions:

- What are the current business practices of broker-dealers and investment advisers?
- Do investors understand the differences between and relationships among broker-dealers and investment advisers?

To describe industry practices, we collected and analyzed information from a number of sources: previous studies of the subject, primarily in economics and business publications and in popular sources, such as trade journals and financial media; data derived from regulatory filings submitted by investment advisers and broker-dealers from 2001 to 2006; business documents used by a sample of firms; and two sets of personal interviews: one set with 26 interested parties with different perspectives on the industry and one set with financial service firms.

To assess investor understanding, we collected and analyzed data from an extensive household survey and from focus groups consisting of experienced and inexperienced investors. The survey, which was completed by 654 U.S. households, asked about perceptions of the differences between investment advisers and broker-dealers, experience with financial service providers, and the level of satisfaction with the services received. Six focus groups with 10 to 12 participants each allowed for interactive discussion of the same topics and offered the opportunity to probe for the assumptions and reasoning that lay behind certain responses.

Overall, we found that the industry is very heterogeneous, with firms taking many different forms and offering a multitude of services and products. Partly because of this diversity of business models and services, investors typically fail to distinguish broker-dealers and investment advisers along the lines that federal regulations define. Despite their confusion about titles and duties, investors express high levels of satisfaction with the services they receive from their own financial service providers.

Current Business Practices of Investment Advisers and Broker-Dealers

We provide a descriptive analysis of the business practices of thousands of investment advisers and broker-dealers based on data they report in regulatory filings. We focus attention on firms that report that they offer both brokerage and advisory services or are affiliated with firms that offer the complementary service. We attempt to clarify the differences between such firms and those that specialize solely in brokerage or advisory services. Our analysis confirms what many stakeholders expressed in their interviews: The industry is composed of heterogeneous firms that provide a range of services and are engaged in a variety of relationships with one another, and, therefore, it is not surprising that investors fail to distinguish financial service providers along the regulatory lines.

Number of Firms and Firm Size

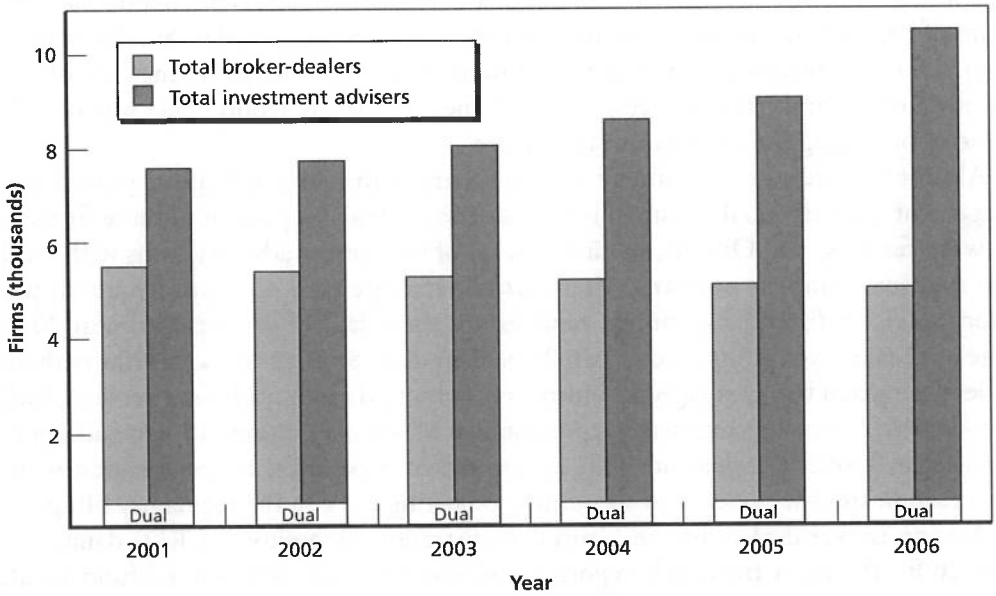
A relatively small number of large firms provide a full range of services, are often affiliated with other financial service providers, and conduct an overwhelming proportion of the investment advisory and brokerage businesses. On the other end of the spectrum are a great number of relatively small firms that provide a limited range of either investment advisory or brokerage services, but they frequently report affiliations with firms providing complementary services.

Figure S.1 displays year-end industry snapshots of the number of brokerage and investment advisory firms from 2001 through 2006, as described in data we obtained from the SEC Division of Investment Management and from the Financial Industry Regulatory Authority (FINRA). During this time period, the following changes took place:

- The number of investment advisers in the Investment Adviser Registration Depository (IARD) database grew substantially, from 7,614 in 2001 to 10,484 in 2006, whereas the number of broker-dealers declined from 5,526 to 5,068.
- The number of broker-dealers in the Financial and Operational Combined Uniform Single (FOCUS) Report database declined from 5,526 to 5,068.
- The number of dual registrants (firms in both databases) in these data remained relatively constant (between 500 and 550 each year).
- The share of broker-dealers that were dually registered increased slightly, from 9.5 percent to 10.6 percent, while the share of investment advisers that were dually registered fell from 6.9 percent to 5.1 percent.

Although some investment advisory firms are very large, most are rather small. Among investment advisory firms with individuals as clients at the end of 2006, more than half reported having no more than ten employees. Only about one-fourth of these firms reported having more than 50 employees, and less than 8 percent reported having more than 100 employees. However, 69 investment advisory firms with individual clients reported that they

Figure S.1
Broker-Dealers, Investment Advisers, and Dually Registered Firms (2001–2006)



SOURCES: Broker-dealer data are from FOCUS reports. Investment adviser data are from IARD .
NOTE: *Dual* indicates firms listed in both databases.
RAND *TR556-S.1*

employed more than 1,000 individuals each. Almost 40 percent of investment advisory firms reported that some of their employees were registered representatives of a brokerage firm.

We also analyzed data on more than 5,000 broker-dealers registered at the end of 2006, but these data do not contain reports on employment and clientele. Much more information is available on firm finances. A defining attribute of a broker-dealer is whether it clears or carries customer accounts. Those firms that do must file a FOCUS report, Part II, while the others need file only the abbreviated Part IIA report. The Part II filers constitute only about 10 percent of registered broker-dealers but tend to be much larger than Part IIA filers.

Among broker-dealers, distributions of assets and ownership equity are heavily skewed, with one group of firms being vastly larger than the rest. The mean of total assets reported in the fourth quarter of 2006 is more than $1 billion, but the median is less than $500,000. The difference between mean of ownership equity ($32 million) and the median ($340,000) is also quite striking. Much of this variation is associated with filing status. The means of reported assets and ownership equity among Part II filers are $10 billion and $250 million, respectively, whereas the corresponding means among Part IIA filers are about $25 million and $7 million.

Financial Services

Most firms reported being engaged strictly as either an investment adviser or as a broker-dealer without any affiliations with those that provide the complementary service. Many others, however, were directly engaged in only one type of activity but were affiliated with a firm engaged in the other type. The remainder, a minority of firms, were directly engaged in both brokerage and advisory activities.

As the economic scope of a firm grows, it tends to engage in a much fuller range of services and consequently is affiliated with other financial service firms or conducts a significant amount of business in both the investment advisory and brokerage fields. Smaller firms, which are much more numerous, tend to provide a more limited and focused range of either investment advisory or brokerage services, although they frequently report some sort of affiliation with firms providing the complementary service.

Almost 95 percent of investment advisory firms with individual clients provide portfolio management for individuals or small businesses, with about 14 percent of those firms managing a wrap-fee program. Overall, about 6 percent of investment advisory firms with individual clients sponsor a wrap-fee program. After portfolio management, the most frequently provided advisory service is financial planning, reported by about half of the firms. Almost 20 percent engage in pension consulting. More than 25 percent of investment advisory firms with individual clients reported being engaged in business activities other than advisory services, including broker-dealer (7 percent), registered representative of a broker-dealer (12 percent), and insurance agent or broker (12 percent). Our assessment of these data, in combination with other evidence, indicates the presence of substantial reporting error in the regulatory filings.

Among broker-dealers in the Central Registration Depository (CRD) database at the end of 2006, the most frequently reported business activities were mutual fund retailer (52 percent), retailing of corporate-equity securities over the counter (50 percent), and private placement of securities (50 percent). Part II filers were more likely than Part IIA filers to report engagement in all but 7 of the 28 different business activities described in the data. More than 20 percent of the broker-dealers reported being engaged in the investment advisory service business. Overall, about 7 percent of total quarterly revenues of broker-dealers were reported

for a fee category that included *but was not limited to* investment advisory service fees. Even among firms that reported being engaged in investment advisory services, this share is just 8 percent. However, further inspection of the data indicates that investment advisory service fees may have accounted for a large share of revenues at smaller firms.

Dual Activity and Affiliations

The number of firms dually registered in the FOCUS and IARD databases remained relatively constant at 500 to 550 from 2001 through 2006. However, the number of dually registered firms grew as a proportion of all broker-dealers, and these dually registered firms grew substantially in terms of mean reported revenues, expenses, and, generally, net incomes over the entire period. With respect to assets under management by these dually registered firms, the total amount in discretionary accounts increased slightly from 2001 to 2006, while the amount in nondiscretionary accounts increased by about 75 percent.

Firms that directly provide either investment advisory or brokerage activities but not both may be affiliated with firms that provide other financial services. Overall, almost one out of every four investment advisers with individual clients has a related person who is also an investment adviser, and this other adviser could, of course, engage in other business activities. Moreover, more than one out of every five advisers reported that a related person was a broker-dealer, municipal-securities dealer, or government-securities broker or dealer. About 17 percent reported that a related person was an insurance company or agency, and 11 percent reported that a related person was an investment company.[1]

Among broker-dealers, more than 20 percent of registered firms in the fourth period of 2006 reported current or expected engagement in investment advisory services. Only about half of these firms are included in the contemporaneous IARD database. Many, but certainly not all, of the other half were confirmed to be state-registered investment advisers. We also obtained data on broker-dealers' affiliations, but these data are much less detailed than the data on investment advisers. About 40 percent of broker-dealers either directly or indirectly control, are controlled by, or are under common control with a firm engaged in the securities or investment advisory business. About 8 percent of broker-dealers are directly or indirectly controlled by a bank holding company or other banking institution.

Firms reporting such affiliations play a disproportionately large role in the market. For example, investment advisory firms that report no direct engagement in brokerage activities but that a related person is a broker-dealer constitute less than 15 percent of all reporting firms but managed more than one-fourth of all accounts and almost two-thirds of all assets reported at the end of 2006. Among broker-dealers, 69 percent of Part II filers reported affiliations with securities or investment advisory businesses, as opposed to 38 percent of Part IIA firms, which tend to be much smaller.

These affiliations further blur the boundaries among types of financial services. In many cases, we found it difficult disentangle the services and business relationships of firms that were dually registered or affiliated with other firms. Some corporations may have multiple subsidiaries or business units, each registered separately as an investment adviser or broker-dealer, but these data do not identify these relationships. By comparing details across databases, we noted many inconsistencies and inaccuracies in the information reported. For example, many invest-

[1] In regulatory filings, *person* can indicate a person or other legal entity, such as an affiliate business.

ment advisory firms that were not sole proprietorships reported being engaged as registered representatives of broker-dealers. Other investment advisers reported being engaged as broker-dealers, but we could find no evidence that they were dually registered. In most of these cases, the firms appear to be affiliated in some way with a broker-dealer with a distinct CRD number, including one investment advisory firm that reported having more than 1,000 employees who were registered representatives of a broker-dealers.

In a few case studies, we attempted to classify firms based on reported activities and affiliations and found that we had to piece together the evidence based on multiple sources of information, such as regulatory filings, business documents, Web sites, and firm interviews. What became clear was that the registered firms may be involved in multifaceted relationships spanning a variety of business activities. Given such complexity, it is not surprising that the typical retail investor finds it difficult to understand the nature of the business from which he or she receives investment advisory or brokerage services.

Disclosures

Both investment advisers and broker-dealers are required to provide certain disclosures to clients and potential clients. In interviews with interested parties, many claimed that the disclosures themselves are problematic. First, they are not written in a way that is easily understandable to the average investor, and the information they provide is inadequate. Second, the financial service provider does not do enough to help investors understand disclosures—that is, they present the required disclosures without taking time to explain them. Third, many said that investors do not take the necessary time and effort to fully read and understand disclosures.

Participants in firm interviews described the lengths to which these firms go to make full disclosure, including efforts to produce booklets written in plain English rather than legal language. Several of these participants acknowledge that, regardless of how carefully they craft documentation, investors rarely read these disclosures.

We examined many types of disclosures: descriptions of the differences between investment advisers and broker-dealers, conflicts of interest, compensation structure, code of ethics and fiduciary oath, future performance, and so forth. We referred to multiple sources—published studies, business documents and Web sites, and interviews with both financial service professionals and investors.

In the business documents submitted by investment advisers, the most frequently identified disclosures concerned the code of ethics and fiduciary oath. In the documents submitted by broker-dealers, the most frequently identified disclosures concerned issues of compensation—e.g., how clients compensate the firm, how other firms compensate the firm, and how employees are compensated. In contrast, the most frequently found disclosure on the Web sites of both investment advisers and broker-dealers was related to future performance.

Investor Understanding

To assess the level of investor understanding about a range of issues, we administered a large-scale, national household survey and conducted six intensive focus-group discussions with both experienced and inexperienced investors. Both methods were designed to identify investor understanding of the distinctions between investment advisers and broker-dealers and the relationships among them. Our analysis confirmed findings from previous studies and from

our interviews with stakeholders: Investors had difficulty distinguishing among industry professionals and perceiving the web of relationships among service providers.

About two-thirds of all survey respondents were classified as "experienced" investors (that is, they held investments outside of retirement accounts, had formal training in finance or investing, or held investments only with retirement accounts but answered positively to questions gauging their financial understanding). Of the 349 respondents who reported using a financial service provider, 73 percent seek professional assistance for advising, management, or planning, and 75 percent seek professional assistance for conducting stock-market or mutual fund transactions.

We presented respondents with a list of services and obligations and asked them to indicate which items applied to investment advisers, brokers, financial advisors or consultants, or financial planners. Their responses indicate that they view financial advisors and financial consultants as being more similar to investment advisers than to brokers in terms of services and duties. However, regardless of the type of service (advisory or brokerage) received from the individual professional, the most commonly cited titles are generic titles, such as *advisor*, *financial advisor*, or *financial consultant*. Focus-group participants shed further light on this confusion when they commented that the interchangeable titles and "we do it all" advertisements made it difficult to discern broker-dealers from investment advisers.

Comments from focus-group participants expand on the survey responses. Like survey respondents, focus-group participants indicated that they would be willing to seek services from an investment adviser or a broker, but for different reasons. The compensation structures, disclosure requirements, and legal duties make investment advisers appealing. However, account minimums, industry certification, and costs make brokers appealing. Even though we made attempts to explain fiduciary duty and suitability in plain language, focus-group participants struggled to understand the differences in standards of care. Furthermore, focus-group participants expressed doubt that the standards differ in practice.

However, despite their confusion about titles and duties even among experienced investors, most survey respondents and focus-group participants are happy with their own financial service provider. It is clear from their responses that that personal service given by the financial service provider is a very important dimension of the business relationship. For survey respondents, the most common types of positive comments attributed to financial service providers are personal, service-related attributes, such as attentiveness and accessibility. These attributes were mentioned more than dimensions such as expertise or performance. For focus-group respondents, attentiveness and accessibility were also mentioned as important dimensions, but the most commonly mentioned attribute they sought was trustworthiness. We do not have evidence on how levels of satisfaction vary with the actual financial returns arising from this relationship. In fact, focus-group participants with investments acknowledged uncertainty about the fees they pay for their investments, and survey responses also indicate confusion about the fees.

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We could not have conducted this study without the contributions of many people who agreed to share their expertise and opinions with us. We thank the individuals from dozens of organizations and firms who shared business documents and participated in interviews. We also thank the survey respondents and focus-group participants who participated in the study. We are also grateful to FINRA in providing data as well as contributing their time and expertise.

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Abbreviations

ALP	American Life Panel
CD	certificate of deposit
CRD	Central Registration Depository
FINRA	Financial Industry Regulatory Authority
FOCUS	Financial and Operational Combined Uniform Single
FPA	Financial Planning Association
HNW	high net worth
IARD	Investment Adviser Registration Depository
MMA	money-market account
NASD	National Association of Securities Dealers
NOPR	notice of proposed rule making
NYSE	New York Stock Exchange
RDD	random-digit-dial
SEC	U.S. Securities and Exchange Commission
SRC	Survey Research Center
SRO	self-regulating organization

CHAPTER ONE

Introduction

A 2005 rule by the U.S. Securities and Exchange Commission (SEC), "Certain Broker-Dealers Deemed Not to Be Investment Advisers" (SEC, 2005) sought to clarify which of a broker-dealer's investment advisory activities are subject to regulation by the Investment Advisers Act of 1940 (SEC, 2005; 54 Stat. 847). The 1940 act regulates activities of investment advisers, whereas the Securities Exchange Act of 1934 (48 Stat. 881) regulates the activities of broker-dealers, who are also subject to oversight by self-regulating organizations (SROs). The 1940 act (§202[a][11]) defines an *investment adviser* as

> any person who, for compensation, engages in the business of advising others, either directly or through publications or writings, as to the value of securities or as to the advisability of investing in, purchasing, or selling securities, or who, for compensation and as part of a regular business, issues or promulgates analyses or reports concerning securities.

To avoid duplicate regulation of brokerage activities, the 1940 act (§202[a][11][C]) makes an exception for "any broker or dealer whose performance of [advisory] services is solely incidental to the conduct of his business as a broker or dealer and who receives no special compensation therefor."

The 1940 act does not define two important concepts: (1) advisory services that are "solely incidental" to the business of a broker or dealer or (2) "special compensation" for advisory services. The 2005 rule clarifies these definitions (SEC, 2005). Under the 2005 rule, a broker-dealer is excepted from the 1940 act if it charges an asset-based or fixed fee (rather than commissions, markups, or markdowns) for its services, as long as the broker-dealer (1) does not charge a separate fee for advisory services; (2) does not provide advice as part of a financial plan or in connection with financial planning services; (3) does not exercise investment discretion over any customer accounts; and (4) includes the following statement in any advertisements for the account and for contracts, agreements, applications, and other forms governing the account:

> Your account is a brokerage account and not an advisory account. Our interests may not always be the same as yours. Please ask us questions to make sure you understand your rights and our obligations to you, including the extent of our obligations to disclose conflicts of interest and to act in your best interest. We are paid both by you and, sometimes, by people who compensate us based on what you buy. Therefore, our profits, and our salespersons' compensation, may vary by product and over time.

Background

During the tenure of chair Arthur Levitt, the SEC commissioned the 1995 *Report of the Committee on Compensation Practices* (Tully and Levitt, 1995) in response to a concern about conflicts of interest in the retail brokerage industry. The report identified *best practices* as those that attempted to more closely align the interests of the investor, the registered representative, and the firm. Fee-based accounts were highlighted as a best practice because they reduce the likelihood of abusive selling practices, such as churning, high-pressure tactics, and recommending unsuitable transactions. Fee-based accounts allow for registered representatives to be compensated based on the amount of assets in an account regardless of transaction activity.

The release of the Tully-Levitt report coincided with an increase in competition in the retail brokerage industry as well as falling transaction-based commissions, the traditional source of income for registered representatives. As a result, more brokerage firms began to offer fee-based programs. Since such fee-based accounts were similar to advisory programs offered by investment advisers, there was some concern that brokerage firms that offered such accounts would be providing advice that was more than "solely incidental" to the transaction and trigger application of the Investment Advisers Act.

The SEC studied these new fee-based brokerage programs and concluded that they were traditional brokerage offerings that had been repriced, not new advisory programs. In 1999, the SEC proposed a rule (§202[a][11]-1 of the Investment Advisers Act), that, among other things, exempted broker-dealers offering fee-based brokerage accounts from being subject to the terms of the Investment Advisers Act. The SEC argued that, if the 1940 act applied to broker-dealers providing such fee-based programs, it would discourage the offering of such programs that would be beneficial to brokerage customers (SEC, 2005).

Many of those who commented on the 1999 proposed rule argued that such an exclusion would blur the lines between broker-dealers and investment advisers and confuse investors about their rights and obligations under each type of financial relationship. In response to these and other comments, the SEC modified the rule and reproposed it in 2005. The reproposed rule expanded the disclosure requirements of broker-dealers offering investment advice by ensuring that any advertisement or literature identify the account as a brokerage account, as discussed previously.

The 2005 rule has since been vacated, but the rule-making process raised important questions about investor perceptions of differences between brokerage and advisory accounts (including the legal obligations of each type of account) and the effect that titles and marketing that investment professionals use have on investors' expectations.

To address these questions, the SEC commissioned RAND to study the current business practices of broker-dealers and investment advisers, as well as investor understanding regarding distinctions between broker-dealers and investment advisers.

Purpose of the Study

The main purpose of our study was to provide to the SEC a factual background for its evaluation of the legal and regulatory environment concerning investment advisers and broker-dealers. The study itself did not evaluate the legal and regulatory structure, nor does this resulting report provide recommendations on policies or regulations.

To gain better insight into the current business practices of investment professionals, as well as what investors understand about the differences between broker-dealers and investment advisers, our research addresses two main questions:

- What are the current business practices of broker-dealers and investment advisers?
- Do investors understand the differences between and relationships among broker-dealers and investment advisers?

This report offers a description of current industry practices in marketing and providing financial products and services to individual investors by investment advisers and broker-dealers. We describe how each of these investment professionals interacts with individual investors today. The report also evaluates investor understanding of information received from investment advisers and broker-dealers about financial products and services. The unit of analysis throughout the report is the financial service provider, such as the firm or its individual professionals, rather than the products or services that they offer.

Approach

We used several methods to study current practices in the financial industry and analyze whether investors understand differences between types of financial service professionals:

- **Literature review.** We examined the relevant literature on the subject, which exists primarily in the fields of economics and business. The relevant economic studies focus on finance, industrial organization, contracts, and law and economics; business studies focus on management and marketing within the financial industry.
- **Quantitative analysis of industry data.** We conducted a large-scale, empirical inquiry of the investment adviser and broker-dealer industries, using data derived from regulatory filings submitted by investment advisers and broker-dealers. Our analysis focuses on a snapshot of firms at the end of 2006 but also includes some findings on changes in the preceding five years. In our analyses, the definition of a firm is determined by a unique registration in these regulatory filings. For investment advisers, we use data from the Investment Adviser Registration Depository (IARD). The 2006 data include 10,484 firms. For broker-dealers, we use two data sets. Data from the Central Registration Depository (CRD) include 5,224 firms. Data from the Financial and Operational Combined Uniform Single (FOCUS) Report describe 5,068 firms.
- **Business-document collection.** We collected and examined business documents used by a sample of selected investment advisers and broker-dealers. Using a probability-sampling scheme, these firms were selected from the registration data described above. Collected documents include marketing and sales documents advertising the firm itself, its range of services, or individual products; regulatory documents, such as disclosure statements and disclaimers required by federal and state regulators and SROs; account-based documents (e.g., application forms, account agreements, transaction confirmations, account statements); and interfirm agreements and contracts between investment advisers or broker-dealers and other possible financial institutions, such as mutual fund managers.

- **Interviews.** We conducted two sets of interviews—one set of interviews with interested parties and one set with financial service firms. The interested-party interviews provided us with a general view of how those parties perceived the financial service industry to work with individual investors. We interviewed knowledgeable people with a variety of perspectives on the financial service industry to gain a better understanding of how broker-dealers and investment advisers work with individual investors. Topics included opinions on trends affecting the investment adviser and broker-dealer markets, the current regulatory scheme, important issues that the current industry faces, and investor choice and sophistication.

  We also interviewed investment professionals in the financial service industry. The firm interviews allowed us to investigate how the financial service industry interacts, in practice, with investors. Participants were asked specific questions about their firms and those firms' business practices. We also asked about level of investor knowledge and industry trends and sought comments on the current regulatory structure.
- **National household survey.** To assess investor understanding of distinctions between investment advisers and broker-dealers, we conducted a large-scale survey on household investment behavior and preferences, experience with financial service providers, and understanding of the different types of financial service providers. The survey was administered to members of the RAND American Life Panel (ALP), a longitudinal survey of U.S. households, via the Internet. The survey was administered for six weeks, from September 26, 2007, through November 6, 2007. During this time, 654 households completed the survey. The household survey included questions on investment experience, beliefs about differences between investment advisers and broker-dealers, and experience with financial service providers.
- **Focus groups.** To gain additional evidence on investor beliefs about and experience with financial service providers, we conducted six focus groups with investors in Alexandria, Virginia, and Fort Wayne, Indiana. Each location included two groups of experienced investors and one group of inexperienced investors. Discussion topics included participants' investment background, general impressions of the financial service industry, financial decisionmaking and experience with financial service professionals, perceived differences between investment advisers and broker-dealers, and expectations of business relationships based on both broker-dealers' and investment advisers' advertisements.

Organization of This Report

The next chapter discusses the policy context for this study. It describes the evolution of the current regulatory and legal environment for broker-dealers and investment advisers. It also presents assessments of the industry and its regulatory structure, as expressed by interested parties. Chapter Three reviews published studies and media reports on various dimensions of the financial service industry, such as its structure, services, revenues, forms of compensation, and disclosure practices. Chapters Four through Six present our key empirical results: Chapter Four presents our empirical analysis of data derived from regulatory filings by broker-dealers and investment advisers; Chapter Five provides our analysis of the business documents and personal interviews with representatives of select firms; Chapter Six presents the results of surveys and focus groups on investor perceptions of distinctions between broker-dealers and

investment advisers. We used diverse data sources and methods for the various components of the empirical analysis. Each chapter begins with a summary of our methodology and directs the reader to appendixes for further details about our data sources and data-collection and analytic techniques. Chapter Seven offers concluding observations about current business practices of broker-dealers and investment advisers and investor understanding of those practices.

CHAPTER TWO

Regulatory and Legal Background

To set the stage for subsequent analysis, it is important to have a basic understanding of key aspects of the legal and regulatory landscape within which broker-dealers and investment advisers navigate. This chapter describes the main features of that terrain. In the first part of the chapter, we offer the central highlights of the regulatory environment, first for broker-dealers, then for investment advisers. We focus on key policy issues related to fee structures, the rendering of advice, and the 2005 rule change that are most relevant to this research project.[1] We conclude with a summary of the results of interviews with "interested parties"—stakeholders with a variety of perspectives on the industry, from trade groups to consumer-interest groups and regulators—who express concern about today's regulatory environment and help illuminate the key policy issues facing the industry.

Regulation of Broker-Dealers

The Securities Exchange Act of 1934 (48 Stat. 881; herein, the 1934 act) and its implementing rules comprise the most central regulatory apparatus for broker-dealers. The act defines a *broker* as a "person engaged in the business of effecting transactions in securities for the account of others" (§3[a][4]), while a *dealer* is a "person engaged in the business of buying and selling securities for his own account" (§3[a][5]).

Brokers and dealers generally cannot do business unless they are registered with the SEC (48 Stat. 881, §15[a]).[2] The SEC has ability to revoke or suspend broker or dealer registration or censure the broker or dealer if the broker or dealer has violated federal law or engaged in other misconduct.

Although the SEC has the authority to set rules regarding broker-dealers, the commission has delegated much of this authority to SROs—in particular, the Financial Industry Regulatory Authority (FINRA).[3] In addition, a broker-dealer must also become a member of FINRA and must abide by applicable rules established by state law.[4]

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[1] This is by no means a complete exegesis of the copious regulatory distinctions within these fields, which would require volumes. For more extended analysis of the legal and regulatory environment, see Plaze (2006).

[2] There are some exceptions, such as broker-dealers who deal with municipal and government securities only or broker-dealers who do business entirely within one state.

[3] FINRA was created in 2007 through the consolidation of the National Association of Securities Dealers (NASD) and the member regulation, enforcement, and arbitration functions of the New York Stock Exchange (NYSE).

[4] If a broker-dealer conducts business on only one national securities exchange (and meets certain other requirements), it is not required to become a member of FINRA if it is a member of that exchange.

Both the SEC and FINRA have several rules that govern the conduct of broker-dealers. The "regulatory-conduct" duties for broker-dealers are significant.[5] We begin with discussion of registration requirements for broker-dealers. We then list some of the more important regulatory requirements in the sections that follow.[6] We conclude the section on regulation of broker-dealers with discussion of the extension of fiduciary duties to broker-dealers handling discretionary (or "discretionary-like") accounts.

Registration Requirements

Applications for FINRA membership involve several filed forms and documents. Membership applications must include Form BD, the Uniform Application for Broker-Dealer Registration, which requires information on the broker-dealer; its business practices; persons, firm, and organizations that are controlled, controlling, or under common control; and criminal, civil, and other actions (for more information on Form BD, see Appendix A). Included in the application materials that registrants must also submit are a detailed business plan that describes all material aspects of the business, such as monthly projections of income and expenses for the first 12 months, an organizational chart, and a list of the types of securities to be offered and the types of customers to be solicited. Other required information includes names and fingerprints for all "associated persons" and any regulatory, civil, or criminal actions against the firm or any associated persons. Furthermore, each associated person must register with FINRA.

For active members, Form BD must be updated "not later than 30 days after learning of the facts or circumstances giving rise to the amendment" (FINRA, 2007b). SEC rules require that all registered broker-dealers file an annual audit report that includes a statement of financial condition, a statement of income, a statement of cash flow, a statement of changes in stockholders', partners', or sole proprietor's equity, and a statement of changes in liabilities subordinated to claims of general creditors. SEC rules also require that broker-dealers file the FOCUS report monthly or quarterly.[7] The main sections of the FOCUS report include a statement of financial condition describing assets, liabilities, and ownership equity; computation of net capital; statement of income or loss; and computation for determination of reserve requirements (for more details on the FOCUS report, see Appendix A).

All professionals—including partners, officers, directors, branch managers, department supervisors, and salespersons—associated with a registered broker-dealer must register with FINRA. As part of the registration process, individuals are required to submit information on prior employment and any disciplinary history as well as pass mandatory examinations

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[5] Note that these conduct regulations do not necessarily give investors direct, actionable legal rights against a broker-dealer. In particular, when a broker-dealer violates the suitability requirement, it does not necessarily follow that the client (as opposed to FINRA) has the authority to take legal action. Traditionally, legal actions for suitability violations have followed a case-by-case assessment (*Colonial Realty Corp. v Bache and Co.*, 358 F.2d 178, 2nd Cir., 1966). But in many jurisdictions, courts have come down more firmly on the side of an absolute prohibition on private rights of action (*Jablon v Dean Witter and Co.*, 614 F.2d 677, 9th Cir., 1980). On the other hand, courts have found that violation of the suitability requirement (even if not directly actionable itself) may bear on other legal rights that an investor possesses, such as implied rights of action under securities-fraud laws (such as SEC Rule 10b-5, 48 Stat. 881, §10[b]), contractual rights, or fiduciary obligations (*Clark v Lamula*, 583 F.2d 594, 2nd Cir., 1978).

[6] FINRA rules include both NASD rules and certain NYSE rules. In this report, we follow FINRA's convention of specifying whether rules are NASD rules or NYSE rules.

[7] Whether a broker-dealer is required to file monthly or quarterly depends on whether he or she clears transactions and holds customer accounts.

administered by FINRA. Topics on the qualification exams include the markets, the securities industry, and securities regulation. Principals of broker-dealers, such as officers, partners, or managers, must pass additional examinations.

Suitability

Under NASD rule 2310, the broker-dealer making a recommendation to a retail customer must have grounds for believing that the recommendation is suitable for that customer with respect to his or her portfolio, financial situation, and needs.

Before executing a transaction recommended to a customer, the broker-dealer is required to make "reasonable efforts" to discover

> i. the customer's financial status; ii. the customer's tax status; iii. the customer's investment objectives; and iv. such other information used or considered to be reasonable by such member or registered representative in making recommendations to the customer. (NASD rule 2310)

Broker-dealers may also have additional suitability requirements, depending on the products that they offer. For example, a new rule that is scheduled to become effective in May 2008 establishes suitability standards for transactions related to variable annuities (NASD rule 2821).

Reasonable Basis

Before recommending a specific security, a broker-dealer must ensure that an investment is suitable for some investors (as opposed to being made suitable for a specific customer). A broker-dealer cannot recommend a security unless there is an "adequate and reasonable basis" for such a recommendation (*Hanly v Securities and Exchange Com.*, 415 F.2d 589, 2nd Cir., 1969).

Prohibition of Excessive Markups

NASD rule IM-2440-1 describes the markup policy. Since 1943, FINRA has used the "5 percent policy," which states that a markup of 5 percent for a security is a reasonable one. But the 5 percent policy is a guide, not a rule. In evaluating whether a markup is excessive, FINRA considers a number of factors, including the following:

- type of security involved[8]
- availability of the security in the market
- price of the security
- amount of money involved in a transaction
- disclosure
- pattern of markups
- nature of the member's business.

Prohibition of Excessive Trading Activities

NASD rule IM-2310-2 prohibits excessive trading, or "churning." In general, churning involves three elements:

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[8] For example, the 5 percent policy may be too generous for certain instruments, such as government bonds.

- The broker-dealer must have control of the account (e.g., a "discretionary" account).
- Once the account is turned over more than four times its total value annually (this is called *excessive trading*), a presumptively suspect case arises.
- The intent of trading is to generate commissions.

Supervision of Registered Representatives

FINRA imposes strict regulations on broker-dealers to supervise the activities of their employees (NASD rule 3010).

Best Execution

There are also requirements that broker-dealers who receive orders from customers must execute them promptly and with reasonable diligence and must seek the most favorable terms for customers available under the circumstances (NASD rule 2320).

Record-Keeping Requirements

Registered broker-dealers are also required to make and keep a number of records relating to their business. Such records include account-record information, records of transactions, statements of financial accounts, memoranda of orders, transaction confirmations, records of associated persons of the firm (including disciplinary history), and a list of beneficial owners of securities held in street name (17 C.F.R. §240.17a-3).

Broker-Dealers and Fiduciary Duties

An important factor in the legal obligations of financial service providers (and the rights of their clients) is the extent to which such financial professionals owe *fiduciary duties* to their clients. Unlike a contractual duty (which allows a party relatively broad discretion to pursue its own self-interest, subject to a loose good-faith constraint), fiduciary duties require a heightened duty to act on another's behalf, in good faith, with honesty, with trust, with care, and with candor. Nearly 80 years ago, U.S. Supreme Court Justice Benjamin N. Cardozo famously described the distinct nature of the fiduciary duty:

> Many forms of conduct permissible in a workaday world for those acting at arm's length are forbidden to those bound by fiduciary ties. A trustee is held to something stricter than the morals of the market place. Not honesty alone, but the punctilio of an honor the most sensitive is then the standard of behavior. (*Meinhard v Salmon*, 249 N.Y. 458, 1928, p. 458)

Unlike the case of investment advisers (addressed below), broker-dealers are not categorically bound—by statute, regulation, or precedent—to a per se rule imposing fiduciary obligations toward clients. Instead, the existence of fiduciary obligations within a broker-client relationship has historically been significantly more contingent, turning ultimately on the factual nature of the relationship (usually as interpreted by courts and arbitrators).

Perhaps the most critical distinction along these lines is that between *nondiscretionary* accounts (for which the broker-dealer simply carries out specific market or limit orders on behalf of its client) and *discretionary* accounts (for which the client has given consent for the broker-dealer to purchase and sell securities on his or her behalf without consent for each transaction—often with restrictions on the categorical domain of such securities). By both title and description, discretionary accounts give a broker-dealer significantly more freedom to

exercise judgment for the client. Instead of merely executing the client's transactional instructions, a broker for a discretionary account will tend to make trades on his or her own accord, on an ongoing basis, on the client's behalf. It is not surprising, then, that such freedom comes at additional potential risk that the broker may abuse that discretion or otherwise run afoul of the client's best interests. Accordingly, brokers who handle discretionary accounts are generally thought to owe fiduciary obligations to their clients. Not only do such duties transcend the basic regulatory constraints placed on the broker, but they also give rise to individual enforcement rights by the client.[9]

In contrast, brokers handling nondiscretionary accounts are generally thought to owe a much more limited and shallow pool of duties to the customer, principally concerning many of the rules that apply to all registrants, including prompt order execution, knowing one's security, knowing one's customer, disclosing conflicts of interest, and refraining from engaging in securities fraud.[10] Significantly, this set of duties is generally perceived not to rise to the level of a fiduciary relationship (see, e.g., *Independent Order of Foresters v Donald, Lufkin and Jenrette*, 157 F.3d 933, 2nd Cir., 1998, pp. 940–941).

At least two additional factors further cloud this landscape. First, some brokerage accounts may possess some characteristics of both discretionary and nondiscretionary accounts. For example, a broker handling a putatively nondiscretionary account may simply begin to make decisions on behalf of his or her client, effectively exercising de facto control over not only executions of client orders but also over the contents of those orders themselves. Even when the client is continuously apprised of such orders, courts have, on occasion, found that the broker's course of performance in exercising control created a fiduciary obligation (see *Hecht v Harris, Upham and Co.*, 430 F.2d 1202, 9th Cir., 1970). Over the years, courts have developed a number of tests to diagnose whether fiduciary-like control exists, usually turning on multifactor tests that are sometimes difficult to predict in practice.[11]

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[9] One oft-cited federal-court opinion has ruled that brokers handling discretionary accounts owe a broad spectrum of fiduciary duties, including the duties to

> (1) manage the account in a manner directly comporting with the needs and objectives of the customer as stated in the authorization papers or as apparent from the customer's investment and trading history, . . . (2) keep informed regarding the changes in the market which affect his customer's interest and act responsively to protect those interests[,] (3) keep his customer informed as to each completed transaction; and ([4]) explain forthrightly the practical impact and potential risks of the course of dealing in which the broker is engaged. . . . (*Leib v Merrill Lynch, Pierce, Fenner and Smith, Inc.*, 461 F. Supp. 951, E.D. Mich., 1978, p. 951).

[10] Brokers handling nondiscretionary accounts have been held to owe more limited duties:

> (1) the duty to recommend a stock only after studying it sufficiently to become informed as to its nature, price and financial prognosis; (2) the duty to carry out the customer's orders promptly in a manner best suited to serve the customer's interests; (3) the duty to inform the customer of the risks involved in purchasing or selling a particular security; (4) the duty to refrain from self-dealing or refusing to disclose any personal interest the broker may have in a particular recommended security; (5) the duty not to misrepresent any fact material to the transaction; and (6) the duty to transact business only after receiving prior authorization from the customer. (*Leib v Merrill Lynch, Pierce, Fenner and Smith, Inc.*, 461 F. Supp. 951, E.D. Mich., 1978, p. 953)

[11] These tests include such factors as

> (1) the broker's past activities as investment advisor; (2) the extent to which the customer followed the broker's advice; (3) the extent to which the broker trades without the customer's prior approval; (4) the frequency of communication between the broker and customer; (5) the investment sophistication of the customer; and (6) the degree of trust and confidence reposed in the broker. (Goforth, 1989, pp. 428–429)

Second, for nearly two decades, the jurisprudential tests for divining the existence and extent of fiduciary obligations among brokers have remained in a form of doctrinal stasis, with little or no evolutionary development of legal precedents. The reason for this hiatus is that virtually all disputes in this period involving brokers' allegedly breached duties to their clients have been adjudicated through arbitration, a process that does not generate published, written opinions. Challenges to the validity of such binding arbitration requirements, moreover, are both rare and rarely successful, leaving much of the current set of disputes beyond the public view. It is difficult to tell with much certainty, then, whether courts hearing such cases today would adopt a fiduciary-duty jurisprudence for brokers that is stronger, weaker, or roughly the same as the one that developed during the 1970s and early 1980s (see, e.g., Markham and Hazen, 2006, §12:33).

Regulation of Investment Advisers

The federal Investment Advisers Act of 1940 (54 Stat. 847, herein the 1940 act) regulates the collection of financial professions that typically includes financial planners, money managers, and investment consultants. The act (§202[a][11]) defines an *investment adviser* as any person who, for compensation, is engaged in a business of providing advice to others or issuing reports or analyses regarding securities. This test is conjunctive (and thus both parts must be satisfied for a party to be deemed an investment adviser under the act). However, the SEC—which is authorized under statute to administer the act—has interpreted its ambit relatively broadly.

Falling under the 1940 act's prescriptions entails three sets of general obligations: heightened fiduciary duties, reporting and record-keeping obligations, and other requirements. We discuss registration requirements as well as these obligations below.

Registration Requirements

Under the 1940 act, any investment adviser who does not fall under a specific exception must register with the SEC.[12] Those whose assets under management amount to less than $25 million are specifically precluded from federal registration and are subject to state requirements (if they exist), while those managing more than $25 million are required to file under federal law, and state registration requirements are preempted.[13] (It is important to note, however, that, while federal law may preempt state registration requirements, it generally does not supersede other state mandates, such as licensing or renewal fees and state blue-sky antifraud laws.)

When applicable, SEC registration takes place at the firm level, and employees and others under control of the firm are deemed to be registered by the advisory firm's registration. The precise vehicle for registration is Form ADV, which must be filed at least once a year (and, in some cases, more frequently). The form contains two parts. Part I contains general informa-

[12] Exceptions include advisers who do all of their business within a state and not pertaining to securities sold on a national exchange, private advisers with fewer than 15 clients, hedge-fund advisers, commodity-trading advisers, and investment advisory firms that are themselves charitable organizations. Some of these exceptions are not as clear as they first appear. For example, in assessing the number of clients maintained by the adviser, the SEC has had difficulty determining whether to treat corporate clients as a single client or to pierce through to the actual number of shareholders. See Pekarek (2007) and Markham (2006, pp. 101–105).

[13] In special cases, such as with Wyoming, which has no state requirements, investment advisers are required to register under federal law.

tion about the nature and size of the adviser's business and disciplinary history within the firm (pertaining to either the company or individual employees). Information on Part II includes disclosures of conflicts, such as the practice of using of an affiliate firm to execute client trades. (See Appendix A for more about Form ADV.)

Fiduciary Duties

In addition to registration requirements, and unlike broker-dealers, federally registered investment advisers owe fiduciary obligations to their clients as a *categorical* matter. As noted already, such obligations require the adviser to act solely with the client's investment goals and interests in mind, free from any direct or indirect conflicts of interest that would tempt the adviser to make recommendations that would also benefit him or her. Although the specific standards for fiduciary obligations are not laid out clearly in the statute, they are unambiguously a centerpiece of the 1940 act's differential treatment of investment advisers, and their categorical application has since been upheld in numerous specific circumstances (see, e.g., *Lowe v SEC*, 472 U.S. 181, 1985, p. 210). Some of these requirements are similar to those that apply to nonfiduciary broker-dealers, including a suitability requirement, a requirement that the adviser have a reasonable basis for his or her recommendations, and a best-execution requirement. However, the universal duties imposed on investment advisers differ in number, degree, and mechanism of enforcement. As noted, the kernel of the fiduciary obligations that investment advisers owe to clients is to refrain from any undisclosed conflicts of interest, a requirement that constrains only some broker-dealers. In addition, even for those requirements that appear similar to those for broker-dealers, violation may be viewed as much more significant.[14]

The fiduciary duties imposed on investment advisers require any adviser either to refrain from acting with a conflict of interest or to fully disclose the conflict and receive specific consent from the client to so act. Examples of such conflicts include various practices in which an adviser may have pecuniary interest (through, e.g., fees or profits generated in another commercial relationship, finder's fees, outside commissions or bonuses) in recommending a transaction to a client. Moreover, these duties have been held to apply both to current and to prospective clients, and thus even deceptive advertising falls under the act's proscriptions.

Record-Keeping Requirements

The SEC also requires investment advisers to keep and maintain a significant number of records pertaining to client accounts, interactions, and business operations for no less than five years. The types of records required to be maintained include both typical records reflecting specific client interactions as well as records that the SEC deems to be pertinent to discharging fiduciary obligations. These include (among other things) records of an investment advisory firm's transactions and its employees' personal transactions, copies of advertisements, copies of client communications, and evidence substantiating performance-based advertising. Although these records are not required to be filed with the SEC, the commission has significant inspection rights and can demand access to an adviser's records as frequently as every other year (and more frequently if the commission has cause to believe that an ongoing violation is occurring).

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[14] The commission takes the position that violation of suitability requirements is tantamount to committing securities fraud.

Other Requirements

Finally, the SEC and the 1940 act require investment advisers to refrain from particular sorts of business practices that have been deemed inconsistent with the adviser's role as a fiduciary. For example, the commission has placed significant restrictions on the advertising practices of investment advisers when soliciting new clients. Moreover, the 1940 act restricts the use of various types of fee structures—and, in particular, performance fees beyond a simple asset-management fee—to relatively sophisticated or high–net-worth (HNW) clients. In addition, advisory contracts are required to prohibit the adviser from assigning client accounts without consent.

The Dividing Line Between Investment Advisers and Broker-Dealers

Because of the distinct regulatory structures of registration, disclosure, and legal duties placed on investment advisers and broker-dealers, the dividing line between these two categories has always been an important (though also an elusive) one. Under the 1940 act, registered brokers and dealers are excluded from the terms of the 1940 act so long as the following are true:

- Any advice that the broker-dealer gives to clients is "solely incidental" to its business as a broker-dealer.
- The broker-dealer does not receive any "special compensation" for rendering such advice.

The proscription on special compensation has traditionally meant that broker-dealers receive compensation from their brokerage clients in the form of commissions, markups, and markdowns on specific trades. In essence, then, investment advisers' business practice of charging a general fee, rather than broker-dealers' practice of charging transaction-specific fees, has evolved into one of the hallmark distinctions between investment advisers and broker-dealers. Although a broker-dealer could, in theory, charge a management fee and avoid being deemed an investment adviser by giving solely incidental investment advice, the judicial interpretation of *solely incidental* is fraught with ambiguity, and thus the mechanism by which broker-dealers and investment advisers charge clients for services has become a significant issue from a regulatory perspective. Consequently, over the past two decades, broker-dealers have begun to drift subtly into a domain of activities that (at least under the regulatory regime) have historically been the province of investment advisers.

Simultaneously, investment advisers have also begun to enhance the scope of advisory activities they offer in a way that has not been part of the traditional norm. Some investment advisers, for example, may offer services that employ computerized trading programs and may take an active, discretionary management role over customer accounts. From the retail investor's prospective, these activities may not be obviously distinct from those in which brokers typically engage.

Adding further ambiguity to the mix is the emergence, also during the past 20 years, of a category of financial service provider known as *financial planners*. This field is itself highly professionalized, with a certification program that involves rigorous training and testing. Moreover, the financial planner is sometimes identified as an entity independent of either the broker-dealer or the investment adviser, offering *generalized advice* about a *general* financial plan for a client and not handling client accounts or executing transactions (see SEC, 1988, at ¶89,011).

However, it is widely acknowledged that financial planners typically offer a range of services, which need not correspond with this description (see SEC, 1988, at ¶89,011).

In the 1990s, a number of other types of brokerage accounts, including "discount" brokerage accounts and "fee-based" accounts, further blurred the distinction between broker-dealers and investment advisers. The popularity of discount brokerage programs grew in the 1990s because they were attractive to brokerage customers who wanted to trade securities at a lower commission rate and who did not want assistance from a registered representative. Full-service broker-dealers began to introduce discount brokerage accounts to compete with discount broker-dealers. However, they continued to offer full-service brokerage accounts that still included assistance from registered representatives, for a higher commission rate than that charged for discount brokerage accounts. There was concern that offering both discount and full-service brokerage accounts would require full-service accounts to come under the proscription of the 1940 act. This concern arose because, with a two-tiered commission structure, the difference in commission rates between full-service and discount brokerage accounts could be viewed as special compensation in return for investment advice.

During this same period, fee-based brokerage programs were gaining popularity as well, in part as reaction to the 1995 Tully-Levitt report (Tully and Levitt, 1995). In 1994, at the request of then–SEC chair Arthur Levitt, a committee was formed to identify conflicts of interest in the retail brokerage industry and to identify best practices to reduce these conflicts. Formation of the Committee on Compensation Practices was, in part, motivated by concerns that commission-based compensation may encourage registered representatives to churn accounts or make unsuitable recommendations. The chair of the committee was Daniel Tully, and the resulting report (Tully and Levitt, 1995) came to be known as the Tully report. In terms of compensation policies, the Tully report defined *best practices* as those "designed to align the interest of all three parties in the relationship—the client, the registered representative, and the brokerage firm" (Tully and Levitt, 1995, p. 1). Among the best practices that the committee found was "paying a portion of [registered-representative] compensation based on client assets in an account, regardless of transaction activity, so the [registered representatives] received some compensation even if they advise a client to 'do nothing'" (Tully and Levitt, 1995, p. 1). In further discussion of compensation based on client assets, the report specifically mentions fee-based accounts as potentially being "particularly appropriate for investors who prefer a consistent and explicit monthly or annual charge for services received, and whose level of trading activity is moderate" (Tully and Levitt, 1995, p. 10).

Fee-based brokerage accounts typically provide customers with a bundle of brokerage services for either a flat fee or a fee based on assets in the account. As with discount brokerage accounts, there was concern that the introduction of fee-based accounts would trigger the 1940 act, due to violation of the special-compensation exemption.

The burgeoning size, scale, and intertwined scope of activities among various financial service providers likely enhanced a general sense of uncertainty about the regulatory categorization of such providers. This sense of uncertainty, in turn, contributed to additional rulemaking activity by the SEC. The most pertinent for this study concerns the proposed rule regarding the creation of a safe harbor for the certain exceptions to the 1940 act. We give an overview of that activity below.[15]

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[15] In addition, we should note that the SEC also briefly adopted a rule that required hedge funds to register under the 1940 act. That rule was subsequently struck down in 2006 (*Goldstein v SEC*, 371 U.S. App. D.C. 358, 2006). It is not directly

Policy Response to Blurring of the Line

In 1999, the SEC issued a notice of proposed rule making (NOPR) that exempted broker-dealers offering fee-based accounts from being deemed to be investment advisers under the 1940 act. Although the proposed rule change would not alter the determination that asset-based or flat fees constituted special compensation, the receipt thereof would not trigger the 1940 act's requirements so long as three requirements were met:

1. The broker-dealer did not exercise investment discretion over the brokerage accounts.
2. Any advice provided by the broker-dealers with respect to the accounts was incidental to the brokerage services provided to those accounts.
3. Prominent disclosure was made to the client regarding the fact that the account was a brokerage account and not an advisory account.

The 1999 NOPR further allowed full-service broker-dealers to offer discount brokerage accounts "without having to treat full-price, full-service brokerage customers as advisory clients" (SEC, 2005, p. 10). The 1999 NOPR was issued in concert with a no-action position taken by the SEC, effectively assuring brokers even before the rule was finalized that they would be fully protected in abiding by the NOPR. In January 2005, the SEC reproposed the rule with some key changes: The revised version of the proposed rule expanded the disclosure-statement requirements and further clarified the circumstances under which investment advice from a broker-dealer is solely incidental to its business as a broker or a dealer. In particular, a broker-dealer must register as an investment adviser if it charges a separate fee or offers separate contracts for advisory services (such as sponsors of wrap-fee programs), holds itself out as a financial planner, or if it offers discretionary accounts. In April 2005, the commission finalized its proposal as "Certain Broker-Dealers Deemed Not to Be Investment Advisers" (SEC, 2005).

A short time later, the Financial Planning Association (FPA) challenged the new rule in court. In March 2007, the U.S. Court of Appeals for the District of Columbia Circuit invalidated it on a split 2-1 decision (*Fin. Planning Ass'n v SEC*, 375 U.S. App. D.C. 389, 2007). A core aspect of the FPA challenge was that, by excluding from the definition of *investment adviser* any broker-dealers who offer fee-based accounts, the rule exceeded what the SEC, as an administrative agency, was empowered to do. Furthermore, it claimed, even if within the SEC's power, the rule constituted an unreasonable interpretation of the empowering statutes. These two challenges correspond to what is known as the *Chevron test* for challenging rule-making in administrative agencies (and is named after the case *Chevron, USA, Inc. v NRDC, Inc.*, 467 U.S. 837, 1984).

In the March 30 opinion, the FPA prevailed on the first part of a *Chevron* challenge—i.e., that the statutory acts at issue, in particular §202(a)(11) of the Investment Advisers Act, was very specific on the issue of who could be exempted from the definition of *investment adviser* and thus limited the SEC's power. On this basis, the rule was vacated. In addition, the court vacated the rule in full because it did not have a severability clause, which would have allowed the court to deem only the offending portion of the rule to be invalid.

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pertinent to our study, but it does have some effect on the interpretation of our larger data set in Chapter Four. We shall revisit this topic there.

The court's opinion revolved exclusively (or nearly so) around statutory interpretation, using a set of interpretational canons—such as plain-meaning interpretation, dictionary definitions, contextual interpretation, observations of grammatical differences among the subsections, and the like—to conclude that §202(a)(11)(C) made up the sole and exclusive exemption for broker-dealers and that §202(a)(11)(F), which gives the SEC broad discretionary powers over future exemptions, could not be used to broaden that tailored and precise exemption for broker-dealers in §202(a)(11)(C).

In May 2007, the SEC announced that it would not seek appeal of the *Fin. Planning Ass'n v SEC* ruling and instead asked the court for a 120-day stay of the ruling so that firms and investors would have adequate time to review their options, because clients with fee-based brokerage accounts would have to decide what to do with their assets in these accounts. The SEC also announced its intention to review the regulation of broker-dealers and investment advisers.

Prior to the vacating of the rule, the SEC adopted a temporary rule and proposed a new rule 202(a)(11)-1. Temporary rule 206(3)-3T allows that broker-dealers that are also registered as investment advisers may engage in principal trading on nondiscretionary advisory accounts under several conditions. Principal trades are transactions in which a broker fills customer orders with the firm's own inventory rather than with shares it obtains on the open market. Dually registered firms are required to provide disclosures on the conflicts of interest that may arise in principal transactions, obtain the customer's consent before engaging in any principal transactions, identify principal trades on confirmation statements, and provide the customers' annual reports showing principal-trading activity in the account. The temporary rule, which expires in 2009, allows for dually registered firms to offer fee-based brokerage clients an alternative account that offers similar services.

Proposed rule 202(a)(11)-1 reinstates guidance from the now-vacated rule on the clarification that

> (i) a broker-dealer provides investment advice that is not "solely incidental to" the conduct of its business as a broker-dealer if it exercises investment discretion (other than on a temporary or limited basis) with respect to an account or charges a separate fee, or separately contracts, for advisory services, (ii) a broker-dealer does not receive "special compensation" solely because it charges different rates for its full-service brokerage services and discount brokerage services, and (iii) a registered broker-dealer is an investment adviser solely with respect to accounts for which it provides services that subject it to the Advisers Act. (SEC, 2007b, p. 55,127)

Stakeholder Concerns with Proposed Changes

We have just reviewed how the law distinguishes between investment advisers and broker-dealers and alluded to the fact that the functional distinction has started to break down. To dig further into the erosion of differences between investment advisers and broker-dealers, we undertook a series of interviews with stakeholders or interested parties. During the rulemaking process, the SEC received more than 1,700 comment letters from investment advisers, broker-dealers, SROs, and investor- or consumer-interest groups. There were concerns that business practices of investment advisers and broker-dealers were becoming more similar to

one another, especially with the introduction of fee-based brokerage programs. There were also concerns as to what investors understand regarding similarities and differences of brokerage and advisory accounts, the legal obligations of each type of account, and the effect of titles and marketing used by investment professionals on the expectations of investors. To further understand these issues, the RAND research team conducted interviews with interested parties, including those who submitted comment letters.

We conducted 26 interviews with representatives from interested parties. The interviews included members of seven financial service industry association groups representing investment advisers, broker-dealers, and financial planners; five consumer-protection, -education, or -research groups; nine interviews with regulators (both federal and state regulators); and five academic experts. About half of the associations or organizations interviewed included two to three participants. The remainder were individual interviews. Participants were asked a series of questions aimed at gaining a better understanding of the important issues facing the financial service industry today, specifically related to the structure of regulations of broker-dealers and investment advisers.

The interviews were conducted in December 2006 and April and May 2007. In consultation with the SEC, interview participants were drawn from two pools—those who had provided public comment and those who had not. We began with prominent parties who submitted public comments to the SEC on the proposed rule during the Federal Register's open comment period. Those who commented on the rule were then categorized based on the industry they were representing (e.g., broker-dealers, investment advisers, consumer protection), if any. Each comment letter was reviewed by members of the research team and then weighted on a 1 to 5 scale, based on level of endorsement or opposition to the proposed rule. Potential participants were selected from each of the various industry categories to reflect a range of views of the proposed rule. By reviewing industry and academic publications and Web sites for additional potential experts, we also solicited participants who had not submitted public comments. Invitation letters were sent via FedEx to 32 parties that were invited to participate in the interview. Research-team members followed up with phone calls or email and then scheduled an interview date.

We followed the same interview protocol for all interested-party interviews. Since interviews follow the format of a conversation rather than answers to a survey, we cannot exactly quantify responses to topics presented. For example, in his or her response, a participant may not actually address the question asked. Additionally, respondents volunteered information not directly related to a particular question. When presenting the findings below, we identify prominent themes that emerged from these interviews. When possible, we assign a relative value, such as *majority* to indicate that more than 50 percent of respondents expressed that view or *most* to represent closer to 75 percent agreement. The term *many* indicates less than 50 percent agreement, whereas *some* represents 10 to 20 percent agreement.

Limited Investor Understanding

Most of those interviewed agreed that whether a financial service professional is a broker-dealer or an investment adviser is indistinguishable to investors. Many interviewees reported believing that investors think that broker-dealers and investment advisers offer the same products and services. According to these interviewees, most investors do not know the differences between a broker-dealer and an investment adviser; nor do they know that their regulatory

burdens may be different. The primary view was that most investors believe that the financial intermediary is acting in the investor's best interest.

Trends Blurring the Distinction Between Broker-Dealers and Investment Advisers

We asked participants for their views on past and future trends that shaped and will shape the industry and marketplace. Many interviewees said that they felt that two factors have encouraged brokerage houses to move away from transaction-based commissions and toward more asset-based fees: the decline in transaction fees and the results from the Tully report. As a result, they claim that broker-dealers expanded their form of compensation to include fee-based accounts. Many participants reported that they thought that offering such products and services meant that broker-dealers and investment advisers became less distinguishable from one another. They claimed that bundling of advice and sales by broker-dealers also added to investor confusion. Participants mentioned that the line between investment adviser and broker-dealers has become further blurred, as much of the recent marketing by broker-dealers focuses on the ongoing relationship between the broker and the investor and as brokers have adopted such titles as "financial advisor" and "financial manager."

As for future trends, some participants noted that the baby-boom generation has been pouring money into the financial markets over the past 25 years. These participants expressed concern that, within the near future, large numbers of these people will be retiring, shifting a large amount of wealth out of corporate retirement plans and into the hands of individual investors. This issue is of primary concern to the regulators. These investors will face new challenges regarding managing their finances over the remainder of their lives, and most will need professional help doing so. Participants said that access to good financial information will be critical for those investors to make wise financial decisions.

Questionable Value of Disclosures

We asked interviewees for their opinions on the disclosures that investment advisers and broker-dealers are required to provide to clients and potential clients. One participant expressed the belief that clients do not have trouble understanding disclosures and, in particular, do not have difficulty distinguishing brokerage and advisory accounts once they have seen the disclosures. However, the majority of interviewees expressed the opposite viewpoint—that disclosures do not help protect or inform the investor, primarily because few investors actually read the disclosures. Many participants said that they think that the disclosures themselves are the root of the problem. The way that they are written is not easily understandable to the average investor, and the information in disclosures is not sufficient. Some participants mentioned their opinion that investment advisers' disclosures are more complete than broker-dealers' disclosures, but participants generally felt that both investment advisers' and broker-dealers' disclosures should provide more information and in plainer language. Some interviewees reported their opinion that the financial service provider does not do enough to help investors understand disclosures: Financial service providers present the required disclosures but do not take time to explain them. Many participants also mentioned that many investors do not take the necessary time and effort to fully read and understand disclosures.

Many participants interviewed acknowledged that the timing of presentation of the disclosures is also important—broker-dealers tend to give disclosures at the point of sale, whereas investment advisers are required to provide Form ADV Part II in advance or at the time of

contract if rescission is permitted within a specifically allotted time. These interviewees said that they think that disclosures at the point of sale are often too late to make a difference.

Assessment of the Current Regulatory Structure

The majority of those interviewed felt that the current regulatory scheme treats broker-dealers and investment advisers differently when, in practice, their role is essentially the same, especially from the viewpoint of the individual investor. Most of these respondents felt that the recently vacated rule that exempts broker-dealers from the 1940 act based on the form of compensation (asset-based fees) misses the mark. They argue that it is the services provided, rather than the form of compensation, that should trigger the type of regulation that applies. Most interviewees said that, if the services provided are the same, then the same rules should apply, because an investor's expectation will be the same.

Some participants were cautious of encouraging additional regulation and worried that it would become an even greater obstacle to commerce. Others felt that the existing regulatory structure could still function but with some needed adjustments. Some of these suggested changes included clearly defining the term *solely incidental*, addressing the issue of how to handle principal trades, and having a uniform disclosure statement across broker-dealers and investment advisers.

Need for Greater Financial Literacy

Many participants argued that the primary concern of regulation should be the investor and creating an investor-friendly industry. They believe that investors need to have confidence in the industry and know that financial service providers are being regulated vigorously and disciplined properly if need be.

Most of those interviewed felt that financial literacy was very low across all income levels. They expressed that investors must take more personal responsibility in their investments but that there is a role for the industry as well. Many participants expressed a clear need for financial education, and several indicated that the financial service industry must step up to provide or fund more financial-literacy and -education programs. Some participants mentioned that financial literacy becomes even more important as the amount of money that moves into the hands of individual investors in the form of self-directed retirement accounts grows each year.

Conclusion

In many ways, the financial service industry finds itself at a crossroads regarding its regulatory and legal status. The legal distinctions that define investment advisers and broker-dealers date back to the 1930s and 1940s. As the beginning of this chapter describes, in the past few decades, the functional difference between investment advisers and broker-dealers has arguably become more blurred, thereby calling into question the wisdom of traditional definitions and regulatory and legal distinctions between the two types of service providers.

The interested-party interviews suggest that individual investors do not distinguish between investment advisers and broker-dealers. Marketplace changes that have resulted in investment advisers and broker-dealers offering similar services have added to investor confusion. This has led many to question the value of two regulatory schemes when, in practice,

investment advisers and broker-dealers serve similar roles, especially in investors' eyes. Those interviews also suggest that disclosures, which are meant to inform investors of their rights and of the responsibilities of the financial service provider, are of little value because few investors read them.

Future regulatory and legal reform may clarify, dissolve, or smooth these blurred boundaries. Regardless, a comprehensive, empirical analysis of these markets will assist policymakers as they evaluate the regulatory and legal environment. The analyses presented in the following chapters are designed to provide such a foundation.

CHAPTER THREE

View of the Industry from Published Sources

To further examine the business practices of investment advisers and broker-dealers, we reviewed the academic literature in economics and business, with a focus on finance, industrial organization, contracts, law and economics, and management and marketing in the financial industry. We also surveyed trade journals, financial media, and national news media.[1] Because practices in the financial sector have been changing rapidly, we focused on studies published in the past five years. Our aim in undertaking this review is to address our two basic research questions: What are the current business practices of investment advisers and broker-dealers (at least as reflected in the literature), and what do investors know about them? As we will explain in this chapter, the academic and trade literature present some important, but incomplete, insights regarding these two questions.

The academic literature is strong in some areas and weak in others. There are many studies, for example, on the topic of investment advisers' compensation, typically built around some conception of principal-agent theory. On other topics, such as the specific composition of fee structures, however, there is discernibly less academic research. And in some areas, the research is meager to nonexistent, most notably on revenue streams and compliance practices of firms. We suspect that these patterns are largely a reflection of the dearth of readily available, structured, and representative data on these issues.

In areas in which the academic literature is thin, we have used other sources to help fill in our understanding of current practices in the industry. In some sections, we synthesize information gleaned from a large number of sources, such as trade journals, financial media, and other similar publications. While popular literature certainly reflects the actual situation in certain cross-sections of the financial service industry at given points of time, these sources may not provide a perfectly reliable account of typical, current practices in the entire sector. For that reason, we complement these sources with a review of business documents and interviews with investment advisers and broker-dealers, which we present in Chapter Five.

We begin our overview of the industry by describing firms: the structure of the industry, services they provide, fee structures associated with those services, and sources of revenue. We then describe marketing and sales practices of financial service firms, including disclosure and compliance practices; investment professionals, their compensation, and training; and, finally, investor perceptions and expectations.

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[1] In our search for relevant sources, we used major research databases in business, economics, and social sciences. Specific channels included EconLit, the American Economic Association's electronic bibliography of economic literature; ABI/INFORM®, covering refereed journals in business and trade publications; LexisNexis®, covering a host of trade and financial media; Social Science Research Network, covering social-science working papers in the publication pipeline; and ProQuest National Newspapers 5, covering large, national newspapers with authoritative financial content.

Characteristics of Firms

Structure of the Financial Service Industry

Industry reports describe that, for both the investment advisory and brokerage industries, a relatively small numbers of firms tend to dominate their respective markets. Our analysis in Chapter Four of data on investment advisers and broker-dealers yields a similar finding.

Investment advisers. A relatively small number of investment advisory firms dominate the industry, in terms of total assets under management. From 2001 to 2007, roughly 5 percent of firms reported discretionary assets under management of more than $10 billion. These firms account for more than 80 percent of assets under management across the industry. However, small firms are the majority among SEC-registered investment advisory firms. From 2001 to 2007, 60 to 70 percent of firms had ten employees or fewer (National Regulatory Services and Investment Counsel Association of America, 2001; Investment Counsel Association of America and National Regulatory Services, 2002, 2003, 2004; Investment Adviser Association and National Regulatory Services, 2005, 2006; National Regulatory Services and Investment Adviser Association, 2007).

Broker-dealers. As with the investment adviser industry, relatively few brokerage firms dominate the market. Broker-dealers do not report assets under management, but an indicator of retail-market activity is revenue. According to data compiled and analyzed by Mills (2005), the top ten brokerage firms accounted for 45 percent of commission revenues as of 2004. Over the majority of the past two decades, with the exception of the late 1990s, this share fluctuated between 38 and 45 percent. The share of the ten largest players bottomed in 1999 at 32 percent. Of fee-based brokerage, one firm dominated the market in 2005 in terms of assets in fee-based brokerage accounts (Tiburon Strategic Advisors, 2005).[2]

Other Firms

Our analysis of the financial service industry focuses on services offered by broker-dealers and investment advisers. However, the financial service industry includes other types of firms that provide services that broker-dealers and investment advisers typically provide, and this injects even more complexity and confusion into the retail-investor market for financial services. See Appendix A for a brief summary of the literature describing mutual fund direct purchase and financial services by banks and accountants.

Fee Structures Associated with Services

We report here on findings from existing sources on fee structures for brokerage and advisory services. Our empirical analysis, document collection, and firm interviews in Chapters Five and Six will shed further light on fee structures within the industry. Furthermore, our research also gives insight on the effects of the recent regulatory developments.

Brokerage services. Before the recent regulatory developments (see Chapter Two), many large brokerage firms had been relying less on commissions and offering fee-based accounts as an option to customers (Smith, 2003). Fees that are based on account size generally range from 1 to 3 percent of assets, whereby larger accounts are subjected to lower fees, and wealthier cli-

[2] However, with the recent regulatory developments, the market for fee-based brokerage service is evolving, as we observe from our firm interviews and as reported in Chapter Five.

ents are often in a position to negotiate the fee rate. In general, brokerage firms find fee-based products and services appealing because they generate revenue regardless of how actively the customer conducts transactions (Horowitz, 2004). Furthermore, as competition from discount brokers has driven down the profits from commissions, fee-based products and services have become even more attractive (Black, 2005). Overall, broker-dealers' commission revenues have deteriorated steadily since 1980 as a result of declining commission rates (Mills, 2005). In a survey of 83 broker-dealers, Eckblad and Black (2006) found that fee revenues grew by 36 percent in 2005, comprising 19 percent of total broker-dealer revenues for the year. The highest reported share of fee revenues was 53 percent (Eckblad and Black, 2006).

Advisory services. National Regulatory Services and the Investment Adviser Association (2007) found that more than 95 percent of SEC-registered investment advisers charge asset-based fees according to 2007 SEC registration data. In addition, one-third charge hourly fees, 41 percent offer fixed-fee arrangements, and 32 percent charge performance-based fees. Only 9 percent of investment advisers reported that they charge commissions for advisory services.

Revenue Streams of Financial Service Firms

In addition to fee structures associated with services, many financial service providers have other sources of revenue. Below, we describe revenue from interfirm arrangements in which both investment advisers and broker-dealers may engage, as well as the phenomenon from finance known as *dual trading*, which tends to apply to broker-dealers most centrally.

Interfirm arrangements. Many financial service providers collect sales commissions from insurance firms, banks, and mutual fund companies (Smith, 2003). Sales arrangements between broker-dealers and mutual fund companies are known as revenue-sharing deals (Lauricella, 2004). Fund companies pay the broker-dealers a certain percentage of the sales that brokers bring in, on top of the commissions that investors pay the broker. For example, one broker-dealer justifies such revenue sharing on the basis of marketing support. This broker-dealer receives from fund companies up to 0.25 percent of the value of shares purchased, plus up to 0.10 percent on fund shares held in its accounts. Another broker-dealer charges fund families up to 0.12 percent and 0.09 percent of funds sold for equity and bond funds respectively.

Brokerage firms have recently begun to disclose details about interfirm agreements to clients (Lauricella, 2004; Segal, 2004). Until recently, revenue sharing was not part of standard written agreements that fund companies had with dealers. Instead, such schemes may have been mentioned in other distribution documents, in an addendum to the main agreement, or structured as an oral understanding, or were sometimes detailed in less formal, side letters (Segal, 2004).

Managed accounts have been growing in popularity in recent years. Managed-account programs, such as unified managed accounts, separately managed accounts, or wrap accounts, may involve interfirm arrangements. Typically, the broker for such an account offers to bundle all of the client's various investments and services, including advice, execution, custody, and clearing pursuant to a single contract. The broker steers the client to a portfolio manager of the client's choice (PLI, 2007, pp. 528–529). The investor pays the broker a fee, which typically varies, across the industry, from 0.4 to 3.0 percent of assets under management. The portfolio manager may be an independent investment adviser or may be employed by the brokerage firm (Kim, 2006, 2007). In our review of the literature, we did not find any details on how the fee is shared between the broker and the investment adviser, although we did come across one

article that cited a source urging the managed-account industry to disclose how these fees are shared (Jamieson, 2004).

Another common business relationship for small brokerage or small investment advisory firms is a structure in which independent brokers or investment advisers become a partner with a large-scale brokerage platform. In such a setup, the independent player can rely on the platform firm for execution, research, training, administrative support, custody, and any software (Clark, 2003). The independent broker or investment adviser pays an asset-based fee to the large brokerage firm whose platform it uses for trading and account management. These fee rates typically vary from 0.05 to 0.17 percent, depending on the competitive positioning and bargaining power of the parties involved ("On the Cutting Edge," 2006). There may also be other fees, such as setup and monthly fees (Oberlin and Powers, 2003).

Multiple roles of broker-dealers and dual trading. Broker-dealers are often put in a position of carrying out different (and sometimes blurred) roles in effecting transactions. In some cases, the broker-dealer merely executes an order on behalf of a customer in the trading market. In other instances, the broker-dealer acts as a principal in the transaction, selling the security to or purchasing it from the client, or submits client orders to a market maker that is a corporate affiliate of the broker-dealer. In yet other instances, the broker-dealer attempts to match up buy-side and sell-side clients, collecting commissions from both sides (and—in some circumstances involving internalized orders—claiming a larger portion of the spread). In practice, moreover, these alternative roles can often be conflated. An emerging area of research in financial economics analyzing the effects of these multiple roles has come to be known as the *dual-trading* literature. (This term is frequently used in a general way that does not bear directly on similar legal or regulatory terms, such as *dual registration*, in which a financial service firm is registered with the SEC both as a broker-dealer and as an investment adviser.) By whatever name one attaches to it, however, the conflicts of interest that sometimes attend the hazy boundaries between broker, dealer, and market maker have generated considerable interest among finance scholars, on both theoretical and empirical grounds. We consider some of them below.[3]

A sizable portion of the academic literature on dual trading concentrates on potential advantages of the practice. Indeed, if acting as a dual trader increases profits significantly, one should expect to see more entry into the market by brokers who are anxious to capture those profits. This entry, in turn, could drive commissions down and increase the depth of the market. And, if the market has greater depth, spreads may well decrease, thereby reducing the profits that broker-dealers can make even from undetected or legally permissible conflicts of interest.

The finance literature has explored such conflicts from both theoretical and empirical perspectives. Garbade and Silber (1982) analyzed optimal compensation and "best-execution" rules in a theoretical model. They found that there were a number of compensation or incentive schemes that gave rise to best-execution rules but that the most helpful intervention is one that encourages public dissemination of accurate securities prices. Thus, one inference from their study is that perhaps the most important measure of regulatory effectiveness is the bid-ask

[3] Although the studies referenced in this section do not relate to the identical set of practices and institutions, nor do they use the same methodologies, their common focus on conflicts among brokers who act for a client and for some pecuniary side interest makes it most natural to address them collectively. Moreover, these studies tend to be grouped together by financial economists who study securities-trading practices.

spread, or the amount by which the asking price exceeds the bid, which is itself a measure of market depth and the presence of private information or agency costs.

A number of other theoretical papers largely corroborate that theme. Chakravarty and Sarkar (2002), for example, developed a theoretical model that suggests that retail investors would prefer, under many circumstances, the banning of dual trading. However, if there is sufficiently free entry and entry costs are relatively low in the dual-trading market (i.e., lots of parties willing and able to be dual traders), then the market will remain viable (but still less desirable for retail investors). Even within this framework, however, a reduction in bid-ask spreads may signal a reduction in informed traders generally, which would make retail investors better off.

Fishman and Longstaff (1992) found empirical evidence that dual trading helps uninformed customers and hurts informed ones. Moreover, they found that prohibitions on front running decrease bid-ask spreads in the market and force commissions up. Prohibitions on dual trading, however, have ambiguous effects on bid-ask spreads.

Smith and Whaley (1994) analyzed the top-step rule introduced in the Chicago Mercantile Exchange in 1987, which effectively reduced the practice of dual trading within futures markets. They found an unambiguous increase in spreads, indicating that the regulation increased costs to the customer.[4]

There also is a small but interesting associated literature on payments made by market makers for order flow. This practice corresponds to making side payments to a broker in exchange for the broker's willingness to channel his or her customers' orders to a specific market maker. The aggregation of order-flow payments can be extremely profitable to brokers. Much like the other literature on dual trading, the social desirability of order-flow payments appears to hinge on the degree of competitiveness of the market. As Ferrell (2001, 2002) noted, the significant competition among discount and fee-based brokerage houses in the late 1990s and 2000s likely caused order-flow payments to be passed on largely to customers.

Marketing of Financial Service Firms

There is scant research on the marketing of financial service firms, and the literature does not tend to distinguish between marketing of brokerage firms and marketing of investment advisory firms. Much of the research indicates that advertisements for financial service providers tend to appeal to emotion rather than provide information that a potential customer would need to make a well-informed decision.

Lawson, Borgman, and Brotherton (2007) conducted a content analysis of financial service print advertisements in 12 magazines, including general-audience magazines, magazines targeted to men, and magazines targeted to women. They found that the most common marketing messages in advertisements in men's and women's magazines involved convenience, safety, economy, family, and effectiveness. The most common marketing messages in advertisements in general-audience magazines involved wisdom, expertise, effectiveness, and productivity of the financial service provider.

Black (2005) briefly touched on advertising practices of brokerage firms. She contrasted the advertising practices of the late 1990s with those of early 2000s. Advertisements in the earlier period encouraged investors to believe that almost everybody could build enormous

[4] It should be noted that the Chicago Mercantile Exchange conducted its own study and concluded that the introduction of the top-step rule had no appreciable impact on market depth or liquidity.

wealth by trading. In contrast, the commercials of the later period promoted the image of the relationship with the broker as a long-term one.

Likewise, in the mutual fund industry, researchers have found that most mutual fund advertisements do not include such information as transaction costs that an investor needs to make a well-informed decision (see Huhmann and Bhattacharyya, 2005, for an overview of mutual fund–advertisement studies as well as their own research).

Disclosure Practices

In our research, we did not come across any academic studies on disclosure practices. We rely here on information that we gleaned from the popular press. The majority of articles on disclosure practices of financial service providers focus on disclosures that pertain to brokerage services. As discussed in Chapter Two, investment advisers are required to provide Form ADV, Part II to clients. While brokers have disclosure requirements as well, they do not have a standard disclosure form, such as Form ADV. Furthermore, the regulations regarding their disclosures have changed with the recent rule-making process. Therefore, it is not surprising to find more discussion of brokerage disclosure than of advisory disclosure. Articles that pertain to advisory services are mainly concerned with hedge-fund disclosures, which were outside the scope of this study.

Although there have been allegations of brokerage firms failing to properly disclose fees and conflicts of interest (for examples, see Damato, 2005; Kristof, 2004; or Lauricella, 2004), several recent articles (summarized next) indicate that brokerage firms are working to improve disclosure practices.

Pessin (2006b) reported that several large brokerage firms were in the process of streamlining disclosure documents in an effort to "inform, not confuse" investors. Such efforts included (1) collating information previously spread out over many documents into a single one, (2) cutting down on legal jargon to make disclosures more understandable, (3) using tables of contents and instructions, (4) giving the client only those disclosures pertaining to the specific type of account opened, and (5) implementing technology that allows professionals see what is being mailed to their clients. According to the article, making disclosures more accessible could also reduce a firm's liability in the event that customers claim not to have understood the disclosures.

As a further example of recent changes in brokerage disclosure practices, Opdyke (2005) reported that a global financial group with 2 million U.S. customers was about to roll out a new, 21-page document pointing out key differences between brokerage and advisory accounts, advisers and brokers, and discretionary and nondiscretionary accounts. Details on the compensation mechanisms of the firm and its employees across account and product types would also be disclosed.

Lauricella (2004) discussed the trend in the brokerage industry toward providing investors with information on revenue sharing between mutual fund companies and broker-dealers.

Armstrong and Hechinger (2004) drew attention to disclosure practices associated with the brokerage of bond purchases. Unlike the stock market, prior transaction prices in the bond market are not accessible to investors, making it hard for them to know the amount of markup they are paying the broker in addition to the going price for the bond. The article reports on the newly embraced bond-disclosure policy of a major dually registered group. This group is beginning to disclose how much it charges for each bond trade and adding to its Web site

access to NASD's Trade Reporting and Compliance Engine (delayed corporate-bond prices) and fair-value pricing estimates from a third-party data vendor.

Internal-Monitoring and Compliance Practices

We found very few sources of information about compliance practices. Research on this topic is virtually absent, probably because so little data are publicly available.

Broker-dealers. Carlson and Fernandez (2006) analyzed data from a Securities Industry Association survey of member firms on compliance. They analyzed survey responses from 56 member firms accounting for 40 percent of industry employment and 28 percent of industry revenues.[5] They estimated that the industry spent $25.5 billion on compliance activities in 2005. Staffing-related costs comprised almost 94 percent of compliance spending. Compliance spending equaled 13 percent of the firms' net revenue. This ratio was highest for mid-sized firms and lowest for small firms. As small firms tend to outsource many compliance-related activities, they do not have to keep full-time compliance staff, which reduces their total compliance costs. Large firms, on the other hand, benefit from economies of scale in terms of personnel costs and infrastructure spending for monitoring.

Pessin (2005) reported that new and increased compliance requirements were altering branch managers' work routines. Branch managers reported that compliance concerns were increasingly dominating their workloads. As a response, some firms were transferring compliance tasks to in-house compliance professionals located at branches or at the main office.

Investment Advisers. ACA Compliance Group, the Investment Adviser Association, *IM Insight*, and Old Mutual Asset Management (2007) recently conducted a survey of compliance personnel at SEC-registered investment advisory firms. They received responses from 457 firms. Most firms have very small compliance staffs: Roughly a third of firms have one employee engaged full time in compliance activities, and 28 percent of firms do not have any full-time compliance employees. Moreover, the vast majority (78 percent) of chief compliance officers perform noncompliance duties in addition to their compliance duties. However, many firms reported that they promote a "culture of compliance" and cite evidence including annual compliance training (65 percent of firms) or ongoing compliance testing (57 percent of firms).

Compensation Structures of Investment Professionals

In the area of broker compensation, we found many articles in the popular press detailing the various forms of compensation structures. However, we found no academic articles. On the other hand, we found several academic articles on investment adviser compensation structures and no popular-press articles. The academic articles analyze the conflicts of interest inherent in principal-agent relationships, such as those between the investment adviser and the client.

Broker Compensation. Across broker-dealer firms, compensation to individuals accounts for roughly 40 percent of a firm's cost structure (Mills, 2005). The literature reports a wide variety of compensation structures for brokers.

A common source of compensation is payout, the amount that a broker receives from total revenue that he or she generated for the firm. The payout percentage depends on the type of relationship between the firm and the broker, the level of production, the products involved,

[5] Note that the survey response rate is 13.5 percent.

and the broker's rank in the firm. Firms can have ten or more different payout levels. In general, payouts are structured to increase incrementally as production increases (Oberlin and Powers, 2003). However, Schaeffer (2001) noted that payout can also involve a fixed percentage.

Clark (2003) found that, as the relationship between the broker and the firm becomes more independent and remote, the payout increases: Large brokerage firms pay out 35 to 50 percent, independent broker-dealers 80 to 95 percent, and clearing firms 100 percent. Tibergien and Clark (2002) found that integrated firms pay out 25 to 40 percent and independent broker-dealers 60 to 90 percent, with the average independent broker-dealer's payout being 82 percent. Furthermore, as professionals gain experience, they progress to arrangements with higher payouts.

Horowitz (2004) explained one brokerage firm's payout structure as follows: monthly, 20 percent of the first $9,000 and 50 percent of anything above $9,000. There are other incentives, such as incentives that promote fee-based accounts: The firm charged its brokers $15 for a stock or option trade made outside a fee-based program and put 1 to 2 percent of the production of brokers who derived at least 50 percent of their annual production from fees into an investment plan that vests after five years.

Even within a firm, compensation structures may vary depending on location. Cowan (2002) reports that, in the branches of a major brokerage firm, broker pay was 100 percent based on production. For the call center–based brokers of the same firm, pay was structured as a base salary and a bonus, which is a function of service skills, production, and net asset inflow.

Investment adviser compensation. In the area of investment adviser compensation, we found several academic articles. The economic and finance theory articles analyze the conflicts of interest inherent in the relationship between the investment adviser and the client. In these sorts of relationships, the investment adviser is the agent and the client is the principal. The client hires the investment adviser to act on his or her behalf, but the investment adviser's interests may not always coincide with those of the client. The client may not be able to perfectly monitor the principal. From the client's point of view, then, the important question is what kind of compensation structure best aligns the parties' interests. These articles generally report that a bonus-compensation structure, in which the adviser is paid a bonus (either a fixed sum or a percentage) if the portfolio return exceeds a predetermined benchmark, is the optimal contract from the client's point of view.

For example, Liu (2005) analyzed a situation in which the conflict of interest between the client and adviser arose because the client could not evaluate the effort or quality of the adviser's work as well as the adviser could. Liu found that the optimal contract was not an asset-based fee. In fact, an asset-based fee may induce the adviser to take excessive risks. When returns are not very volatile, a bonus-compensation structure is the optimal contract. Likewise, Das and Sundaram (2002) found that clients were generally better served by a bonus-compensation structure than by fulcrum fees. However, unlike Liu, they found that a bonus contract leads to the adoption of riskier portfolios than fulcrum fees do. Finally, Palomino and Prat (2003) found that, when the conflict of interest between client and adviser arises due to potential differences in their willingness to undertake risk, the optimal contract was a bonus contract.

Empirical academic articles that analyze the effect of compensation structure tend to use fund data, as those data are more readily available than data from other types of adviser-investor relationships. These analyses further support the theory articles' hypotheses on optimality of bonus-compensation structures. For example, Elton, Gruber, and Blake (2003) found that

mutual funds with a bonus-compensation structure perform better than did funds without. Similarly, Coles, Suay, and Woodbury (2000) found that closed-end fund premiums are larger when the adviser's compensation structure has a bonus component to it.

Investor Perceptions and Expectations of Financial Service Providers

Motivated in part by the SEC's investment adviser and broker-dealer rule-making process, a few studies have examined investors' understanding of the differences among types of financial service providers and particularly between investment advisers and broker-dealers.

In 2005, the SEC commissioned a study by Siegel and Gale and Gelb Consulting Group. The study team conducted four focus groups of investors in Tennessee and Maryland. Focus-group participants generally did not know the differences among brokers, financial advisors, financial consultants, investment advisers, and financial planners (Siegel and Gale, LLC, and Gelb Consulting Group, Inc., 2005).

The Zero Alpha Group and the Consumer Federation of America commissioned a survey by Opinion Research Corporation of 1,044 investors regarding regulation of brokers and investment advisers. When asked, "Based on your knowledge of stockbrokers, such as Merrill Lynch, Morgan Stanley, and Edward D. Jones, which ONE of the following statements do you believe BEST describes the services they provide to their customers?" 28 percent of respondents reported that financial advice is the primary service, and 26 percent reported that conducting stock-market transactions is the primary service (ZAG, 2004). When asked the following question, 86 percent of respondents answered affirmatively:

> Stockbrokers receive financial incentives from INVESTMENT product sponsors to recommend particular investments to their customers. If, for example, a stockbroker receives cash payments, vacation trips or other forms of compensation from a mutual fund company AS AN INDUCEMENT TO sell a particular mutual fund to his or her clients, should the stockbroker BE REQUIRED TO DISCLOSE THAT FACT TO A CUSTOMER BUYING THE MUTUAL FUND? (Opinion Research Corporation, 2004, slide 13)

Almost all (91 percent) of respondents reported that they thought that, if stockbrokers and financial planners offer the same type of investment advisory services, the same investor-protection rules should apply to both. Lastly, 65 percent of respondents reported that they would be much or somewhat less likely to use a stockbroker for investment advice if brokers were subject to weaker investor-protection rules than a financial planner would be (Opinion Research Corporation, 2004).

In a 2006 survey of 1,000 investors, TD AMERITRADE found that, even with the new disclosure rules from the 2005 rule (§202[a][11]-1), investors were still generally unclear about the distinction between brokers and investment advisers. When asked, "Are you aware that stockbrokers and investment advisors offer fee-based financial advice but provide different levels of investor protection?" 43 percent of respondents reported that they were unaware of this, and 47 percent of respondents reported that they were not aware that brokers do not have to disclose all conflicts of interest. More than 60 percent of respondents believed that brokers have a fiduciary duty, and 90 percent of respondents believed that investment advisers have a fiduciary duty. The majority of respondents would not seek services from a broker if they

knew that brokerage services provided fewer investor protections, that brokers did not have a fiduciary duty, or that brokers were not required to disclose all conflicts of interest. After being presented with the disclosure statement specified by the 2005 rule, 79 percent of respondents reported that they would be less likely to seek financial advice from a brokerage firm. Moreover, 64 percent reported that they did not expect to get an unbiased response if they were to ask a broker about the differences between brokerage and advisory accounts (TD AMERITRADE Holding Corporation, 2006).

There are also a few studies that focus on dimensions of service that help determine investors' satisfaction with their brokers. Fusilier and Schaub (2003) set out to examine brokerage clients' perceptions and points of satisfaction. They conducted two surveys of investors: one in 1998 (bull market) of 760 respondents and another in 2002 (bear market) of 388 respondents. Survey items included questions about perceptions of broker practices and satisfaction. Fusilier and Schaub found that satisfaction was influenced by the investor's perception of the broker's honesty, expertise, knowledge, and service. Furthermore, they found that investor perceptions and levels of satisfaction did not change significantly from the bull to the bear markets.

Yang and Fang (2004) performed a content analysis of 740 customer reviews of online brokerage services and identified quality dimensions that were closely related to satisfaction: responsiveness (e.g., prompt service, order execution, order confirmation), service reliability (e.g., accurate quotes, order fulfillment, calculation of commissions), competence (e.g., research capacity), and security (e.g., privacy).

To investigate features that matter to online traders, Chao, Mockler, and Dologite (2002) surveyed 139 investors with assets ranging from $1,000 to $1.3 million. The most highly ranked features were cheaper trading costs, trading security, customer service, and technical support. The dimensions that mattered the least were reputation of the firm, ease of use of the Web site, reliability of trades, and ease of account opening and access. Such service dimensions as execution speed, real-time quotes, and access to IPOs came out as only moderately important.

Conclusion

Overall, our review of the literature offers some insights about both our research questions concerning the business practices of investment advisers and broker-dealers and investor understanding of distinctions between the two. Our review suggests that the financial service industry is perpetually evolving. We summarize the key findings as follows:

- Both the investment adviser and broker-dealer industries have relatively few firms that dominate their respective markets.
- Almost all investment advisers charge asset-based fees for their services, while very few charge commissions for advisory services. While broker-dealers typically charge commissions for brokerage services, there was tremendous growth in fee-based brokerage services before the 2005 rule (§202[a][11]-1) was vacated.
- While we did not find articles related to investment advisers' disclosure practices, we did find a number of articles on broker-dealer disclosure practices. Many of the articles reported a trend toward increasing and improving disclosures to clients.

- Self-reports from brokerage firms and investment advisory firms indicate that these firms spend significant money and effort on internal monitoring and compliance.
- Existing studies suggest that investors do not have a clear understanding about the distinction between broker-dealers and investment advisers and their different levels of fiduciary responsibility.

Our review of the existing literature indicates that important, unanswered questions remain concerning business practices and investor perceptions of financial service providers. In the following chapters, we present the results of our own empirical work by analyzing administrative data on broker-dealers and investment advisers (Chapter Four), by examining the business documents of select firms and interviewing firm professionals (Chapter Five), and by analyzing survey and focus-group responses on investor perceptions of the financial service industry (Chapter Six).

CHAPTER FOUR

Insights from Industry Data

We report in this chapter on a large-scale analysis of data derived from regulatory filings made by investment advisers and broker-dealers. We use these data to describe relevant aspects of the current state and recent evolution of the investment adviser and broker-dealer industries, focusing attention on the services that these provide and the relationships among them. This analysis reflects the best available empirical evidence on systematic patterns of activities, affiliations, and business growth among the many thousands of firms that the data describe.

All of the administrative data for this study came from regulatory filings submitted by registered investment advisers and registered broker-dealers. We rely on three sources of data, which we obtained either from the SEC Division of Investment Management or from FINRA:

- IARD data based on Form ADV filings by investment advisers
- CRD data based on Form BD filings by broker-dealers
- FOCUS report filings, parts II and IIA, by broker-dealers.

Taken together, the data have impressive scope, describing the attributes of more than 10,000 investment advisers and 5,000 broker-dealers in the fourth quarter of 2006. Moreover, some of this information is available quarterly back to the fourth quarter of 2001 for investment advisers and 1999 for broker-dealers. As a result of the different regulatory regimes, however, the content of the data sets varies greatly between these two types of firms. A firm's regulatory filing requirements in one domain (e.g., investment advisory firms handling more than $25 million in assets) may be quite different from those in another (e.g., brokerage firms that do not handle client accounts). This limitation tends to preclude direct "apples-to-apples" comparisons of firms in the various constituent groups. Nevertheless, it does give us a reasonably informative picture of the state of each industry, along with some limited opportunities to conduct a comparison.

For more detail on key characteristics of these filings, the architecture of the data sets, and detailed descriptions of data sources, see Appendix A. Appendix A also includes details about our efforts to identify dually registered firms, as well as firms that may appear to investors to engage in dual activities, using these three data sources along with searchable databases maintained by the SEC and by FINRA.

Throughout this chapter, we take the firm as the unit of analysis, but the data we received determine the definition of a *firm*. That is, each registered investment adviser is a separate firm, and each registered broker-dealer is a separate firm. Some firms are dually registered as both an investment adviser and a broker-dealer. Of course, some corporations may have multiple sub-

sidiaries or business units, each registered separately as an investment adviser or broker-dealer, but these data do not identify these relationships. To complicate matters further, there are other types of relationships that are not completely identified by our data. For example, some solely registered investment advisory firms have employees who are registered representatives of broker-dealers. Quite frequently, one such employee is the sole proprietor or founder of a small investment advisory firm.

This chapter attempts to identify the relationships among firms that emerge from the administrative data. (We then used these data on the population of individual registrants to select firms for further data collection and analysis in Chapter Five.) The portrait that arises from these data reveals an industry that is extremely heterogeneous in terms of firm size, services offered, activities of affiliated firms, and nearly every other dimension we describe. This variation is true of investment advisers and broker-dealers, as well as across these industries. A fraction of the firms in our data—about 5 percent of investment advisers and 10 percent of broker-dealers—appear to be dually registered; that is, these firms are listed in both the database of investment advisers and the database of broker-dealers. Our data also indicate that many firms registered solely as one type are affiliated with firms engaged in the other type of business. We use these indicators of dual and affiliated activity to classify firms within each industry. This classification scheme captures important aspects of the heterogeneity across firms.

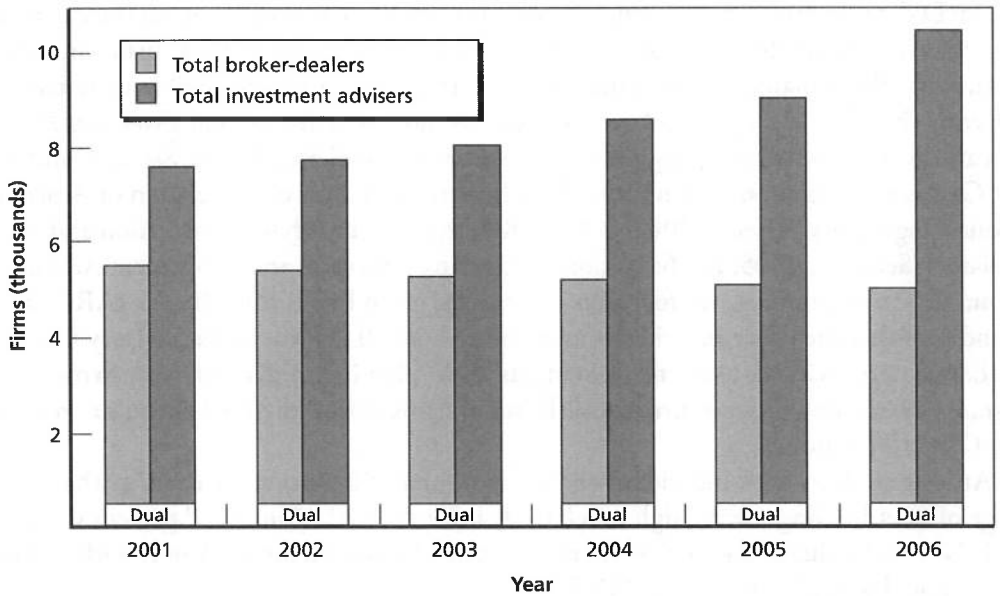
Our analysis is organized as follows. First, we present a brief overview of firms included in our data from 2001 through 2006. Next, we turn to separate discussions of investment advisers and broker-dealers. In each case, we first present summary statistics describing firms at the end of 2006, and then we compare firms based on our indicators of dual and affiliate activity. Our conclusions highlight the key comparisons between investment advisers and broker-dealers that we can make with the available data.

Overview of Firms in the Data: 2001–2006

We begin the analysis by tracking the number of firms at year end from 2001 through 2006. As displayed in Figure 4.1, the number of investment advisers in our IARD data grew substantially over this period, from 7,614 to 10,484, whereas the number of broker-dealers submitting a FOCUS report declined from 5,526 to 5,068. We also used these IARD and FOCUS data to identify dually registered firms based on a match of the unique identifier—the CRD number—in the fourth-quarter filing of each year from 2001 though 2006. We see in the figure that the number of dually registered firms consistently hovered between 500 and 550, with little discernable temporal trend. Taken together, these results indicate that the share of broker-dealers that were dually registered (i.e., listed in both databases) increased slightly from 9.5 percent to 10.6 percent, while the share of investment advisers that were dually registered fell from 6.9 percent to 5.1 percent.

Two important caveats (discussed at greater length in Appendix A) deserve explicit mention here with regard to the number of investment advisers in our IARD data. First, many investment advisers complete Form ADV for state registration but are not included in our IARD data on SEC-registered advisers. Soon after the first electronic filings were submitted to IARD, National Regulatory Services and the Investment Counsel Association of America issued their 2001 *Evolution Revolution* report, in which they estimated that upward of two-

Figure 4.1
Broker-Dealers, Investment Advisers, and Dually Registered Firms (2001–2006)



SOURCES: Broker-dealer data are from FOCUS reports. Investment adviser data are from IARD .
NOTE: *Dual* indicates firms listed in both databases.
RAND *TR556-4.1*

thirds of registered investment advisers were state registered (National Regulatory Services and Investment Counsel Association of America, 2001). Unfortunately, we did not have access to direct cross-sectional or trend data on state registration as opposed to SEC registration. We attempted, however, to identify registered broker-dealers that were also state-registered investment advisers at the end of 2006, and these findings are discussed in the section on broker-dealers.

Second, our findings on trends in the number of investment advisers are affected by changes in the registration requirements of hedge funds. As described in the 2006 *Evolution Revolution* report (Investment Adviser Association and National Regulatory Services, 2006, p. 4), a sizable fraction of the growth in investment advisory firms during 2006 were "new registrations pursuant to SEC rule changes requiring that certain previously unregistered hedge-fund managers register as investment advisers by February 1, 2006." And indeed, the data we received for the first quarter of 2006 include a total of 10,274 advisers, indicating that most of the increase in registrants from 2005 to 2006 (see Figure 4.1) did occur in the first quarter. During 2006, however, a court decision invalidated the SEC rule requiring registration of hedge funds (*Goldstein v SEC*, 371 U.S. App. D.C. 358, 2006). According to the 2007 *Evolution Revolution* report (National Regulatory Services and Investment Adviser Association, 2007), more than 700 hedge funds deregistered subsequent to this ruling. If we restrict attention to the period 2001 through 2005, the number of investment advisers in our IARD data grew at an average annualized rate of 4.5 percent. The rate is 6.7 percent if we extend the period through the end of 2006.

Investment Advisers

Attributes of Investment Advisory Firms: Fourth Quarter of 2006

The IARD data describe a heterogeneous collection of 10,484 investment advisory firms listed in the database in the fourth quarter of 2006. About 99 percent of these firms are SEC registered, with the remainder indicating that that they are no longer eligible to remain registered with the SEC. As a point of comparison, we note that the annual *Evolution Revolution* publications describe all SEC-registered firms (see National Regulatory Services and Investment Counsel Association of America, 2001; Investment Counsel Association of America and National Regulatory Services, 2002, 2003, 2004; Investment Adviser Association and National Regulatory Services, 2005, 2006; National Regulatory Services and Investment Adviser Association, 2007). In contrast, we focus on the reports given by all firms in our IARD database that indicate that they have individuals as clients. About 70 percent of the advisory firms report that they have individuals as clients, leaving us with 7,395 investment advisory firms. Descriptive statistics for the full set of firms and the set of firms with individual clients are reported in Table C.1 in Appendix C.

Among advisers with individual clients, more than 80 percent have clients that represent a range of asset holdings, from high to relatively low net worth. Almost 17 percent work strictly with HNW individuals, leaving less than 3 percent who reportedly work only with individuals who are not classified as having an HNW.

Employees. Although some investment advisory firms are very large, most are rather small. As reported in the first column of Table 4.1, more than half of the investment advisory firms with individual clients reported that they employ no more than ten individuals. Only about one-fourth of the firms reported having more than 50 employees, and less than 8 percent

Table 4.1
Advisers with Reported Number of Employees, by Employee Type (7,395 Investment Advisory Firms That Have Individual Clients)

	Employees (%)		
Employees of This Type at the Firm	All Types[a]	Perform Investment Advisory Functions	Registered Representatives of a Broker-Dealer
0	0.0	1.3	61.9
1 to 10	54.4	70.5	23.9
11 to 50	19.4	13.7	4.9
51 to 100	18.3	10.3	5.5
101 to 250	5.3	2.9	2.3
251 to 500	0.9	0.6	0.6
501 to 1,000	0.7	0.3	0.3
>1,000	0.9	0.4	0.6
Any number	100.0	100.0	100.0

SOURCE: IARD data for fourth quarter of 2006.

[a] Column does not total 100 percent due to rounding.

reported having more than 100 employees. However, 69 investment advisory firms with individual clients reported that they employ more than 1,000 individuals each.

The data also describe the number of employees performing "investment advisory functions (including research)" and the number of employees who are "registered representatives of a broker-dealer" (see SEC, 2006). As Table 4.1 shows, there is a good deal of variation across firms in the number of employees who are registered representatives. Although more than 60 percent of firms reported having no such employees, many reported a relatively large number of such employees. For instance, almost 10 percent of firms reported having at least 50 employees who are registered representatives of a broker-dealer, and almost 4 percent reported having at least 100 such employees. Note that a small percentage of investment advisory firms report that they have no employees performing advisory functions.

Assets under management. Other indicators of the heterogeneity in firm size arise from the data on assets under management, in which we found that a small fraction of firms manage a large fraction of the assets. Reports of assets under management are given if the advisory firm first reports that it provides "continuous and regular supervisory or management services to securities portfolios" (SEC, 2006). Table 4.2 describes the reports given by 7,177 advisory firms with individual clients and a positive number of accounts.

More than two-thirds of the accounts are discretionary accounts, totaling more than $15 trillion in assets. These firms manage an average of just fewer than 1,000 discretionary accounts, with an average of total assets in these accounts exceeding $2 billion. However, firms typically manage far fewer accounts and assets than the average. For example, the median number of discretionary accounts is just 128, and the median of total assets in these accounts is about $75 million. In fact, more than 90 percent of firms have fewer accounts and fewer assets than the average. One firm manages about 4 percent of all reported assets in discretionary accounts.

Not only are nondiscretionary accounts fewer in number, but more than 25 percent of firms have no such accounts, 50 percent have no more than one, and 75 percent have no more

Table 4.2
Assets Under Management (7,177 Advisory Firms That Reported Having Individual Clients and Providing Continuous and Regular Supervisory or Management Services to Securities Portfolios)

Account	Mean	Standard Deviation	Minimum	Median	Maximum
Discretionary					
Number	991	10,741	0	128	600,141
Dollars (thousands)	2,143,795	17,200,000	0	75,555	613,000,000
Nondiscretionary					
Number	457	9,826	0	1	466,527
Dollars (thousands)	230,906	2,410,753	0	361	115,000,000
Total					
Number	1,448	16,917	1	190	699,386
Dollars (thousands)	2,374,701	18,200,000	10	106,764	651,000,000

SOURCE: IARD data for fourth quarter of 2006.

than 35. A total of almost $2 trillion in assets are reported to be managed in these accounts, and one firm reported managing about 7 percent of these assets.

Summing together discretionary and nondiscretionary accounts, the 7,177 firms reported managing a total of more than $17 trillion, with a mean across firms of 1,448 accounts and nearly $2.4 billion in assets. Thus, mean account size is $1.6 million.

Of course, a very different picture arises from analysis of medians rather than means. The median number of accounts at a firm is just 190, and the median total of assets under management at a firm is just less than $107 million. The median account size cannot be calculated from the available data. One firm reported a total of $651 billion in assets under management. In contrast, 90 percent of advisers reported managing less than $1.7 billion each.

Compensation. Not surprisingly, the primary form of compensation is based on a percentage of assets under management. More than 97 percent receive such compensation, and the share is even higher among the 98 percent of firms that report providing "continuous and regular supervisory or management services to securities" (language from SEC, 2006). The second-leading form of compensation is "fixed fees (other than subscription)" (language from SEC, 2006), which are reported by 50 percent of advisers with individual clients, followed by hourly fees (44 percent). Only 13 percent of these advisers reported receiving commissions.

In fact, more of these advisers (20 percent) reported receiving performance-based fees than reported receiving commissions. Many of these reports are sure to pertain to hedge funds. For instance, of the 1,505 advisers reporting performance-based fees, almost 60 percent are classified as possible hedge funds according to a methodology based on that adopted in the *Evolution Revolution* reports.[1] A total of 1,177 advisers with individual clients (16 percent) are classified as possible hedge funds.

Business activities. The advisers also reported on business activities in which they or related persons are engaged. They first reported on the advisory services they provide. Almost 95 percent provide "portfolio management for individuals and/or small business" (language from SEC, 2006), with about 14 percent of those firms managing a wrap-fee program. Overall, about 6 percent of advisers with individual clients sponsor a wrap-fee program. After portfolio management, the most frequently provided advisory service is financial planning, reported by about half of the firms. About 18 percent engage in pension consulting.

More than 25 percent of investment advisers reported that they are engaged in activities other than advisory services, including brokerage services, among others. These reports may provide indicators of dual activity. As reported in Table C.1 in Appendix C, the most frequently reported activity is insurance broker or agent (16 percent). In addition, about 7 percent of the investment advisers with individual clients reported being engaged as a broker-dealer. Another 12 percent reported that they are registered representatives of a broker-dealer, with the overwhelming majority of these reports given by firms that are not sole proprietorships. According to Investment Adviser Association and National Regulatory Services (2006), this response pattern indicates confusion about the question (see also Appendix A).

However, almost 75 percent of firms did not report any of the listed "other business activities." Of these 5,424 firms, 4,160 also reported that they neither are "actively engaged in any other business not listed in Item 6.A. (other than giving investment advice)" nor "sell

[1] We classify a firm as a possible hedge fund if it reported that its clients include "other pooled investment vehicles (e.g., hedge funds)" and the adviser or a related person is "a general partner in an investment-related limited partnership or manager of an investment-related limited liability company" (SEC, 2006).

products or provide services other than investment advice to advisory *clients*" (language from SEC, 2006).

Affiliated activities. Firms that do not directly engage in other business activities may instead be affiliated with firms that engage in these activities. Overall, almost one out of every four investment advisers with individual clients has a related person who is also an investment adviser. This other adviser could, of course, engage in other business activities. Moreover, more than one out of every five advisers reported that a related person is a broker-dealer, municipal-securities dealer, or government-securities broker or dealer. About 17 percent reported that a related person is an insurance company or agency, and 11 percent reported that a related person is an investment company. A smaller share of advisers reported having related persons that are banks or thrifts (9 percent); pension consultants (5 percent); or futures-commission merchant, commodity-pool operator, or commodity-trading adviser (5 percent).

The advisers also reported on other aspects of relationships with broker-dealers, with the overwhelming majority reporting some such relationship, either directly or via a related person. Whereas only 5 percent reported that the adviser or a related person engages in "agency cross transactions" (language from SEC, 2006), more than 60 percent reported that the adviser or a related person has discretionary authority to determine the broker or dealer to be used for a purchase or sale of securities for a client's account. Almost 80 percent reported that they or a related person recommends brokers or dealers to clients, and almost 60 percent receive research or other products or services other than execution from a broker-dealer or a third party in connection with client securities transactions.

Comparison of Investment Advisory Firms by Dual and Affiliated Activity Classification

In this section, we provide more detailed evidence of the relationships among investment advisers and broker-dealers. In particular, we consider advisory firms with individual clients, and we track various firm attributes from 2001 to 2006. Moreover, we further compare these attributes between firms that reported involvement in brokerage activities and those that did not.

There are different ways to identify whether an advisory firm reports involvement in brokerage activities (see Appendix A). One way to do so, for example, is simply to flag any firm that commonly appears in both the IARD data and the data on broker-dealers. But other approaches exist as well. For example, some investment advisory firms indicate on their IARD forms (i.e., Form ADV) that they are also broker-dealers, but not all of these firms are registered in a database of broker-dealers, so we cannot confirm their claims. Still other firms reported being a registered representative of a broker-dealer, but we found no evidence of this status in our other databases.[2]

Given the heterogeneity of methods for identifying firms that are active both as investment advisers and as broker-dealers, we created five classes of firms that indicate what different sources of data reveal about their activities. We specifically classified each of the investment advisory firms into one of five mutually exclusive and exhaustive types:

[2] We suspect that many of these inconsistencies emanate from confusion among individual filers about whether they should be reporting information about themselves or about their firm. Indeed, our data show that a great many of these firms have founders or principals who are employed as registered representatives of a broker-dealer.

1. *Dually registered:* A matching, unique, firm identifier (the CRD number) exists in both the IARD database and a database of broker-dealers (either CRD data or FOCUS reports) for the corresponding business quarter.
2. *Reportedly engaged as a broker-dealer:* IARD data indicate that the firm has reported itself to be engaged in business as a broker-dealer, but no matching CRD number is found (i.e., not of type 1, dually registered).
3. *Registered representative:* IARD data indicate that the firm is a registered representative of a broker-dealer, and the firm is not of type 1 or 2 (not dually registered and not reportedly engaged as a broker-dealer).
4. *Affiliated activity:* IARD data indicate that a related person is a broker-dealer, municipal-securities dealer, or government-securities broker or dealer, and the firm is not of type 1, 2, or 3 (not dually registered, not reportedly engaged as a broker-dealer, and not a registered representative).
5. *Neither dual nor affiliated activity:* The firm is not of type 1, 2, 3, or 4.

The great majority of firms in the IARD data are of the fifth type—neither dual nor affiliated activity. Moreover, as reported in Table 4.3, it is these firms that account for most of the previously mentioned growth in the number of firms in our IARD data from 2001 through 2006.[3] However, the firms in the other classifications dominate the market in the sense that they manage the overwhelming majority of assets and account for most of the growth in assets under management since 2001.

We turn our attention now to a comparison of firms across these types. We restrict the analysis to those firms reporting that they have individual clients. Most of the discussion

Table 4.3
Advisers of Each Type, by Year

Fourth Quarter of Year	Dually Registered (FOCUS)	Reportedly Engaged as Broker-Dealer	Registered Representative	Affiliated Activity	Neither Dual nor Affiliated Activity
2001	527	124	826	1,803	4,334
2002	538	131	841	1,810	4,455
2003	548	112	858	1,850	4,724
2004	525	105	868	1,872	5,253
2005	518	101	819	1,904	5,742
2006	536	94	855	2,009	6,990

SOURCE: Activities and affiliations reported in IARD. Dually registered firms were determined by a match between IARD and FOCUS data.

[3] The numbers in this table include all firms in the IARD data and therefore correspond to those in Figure 4.1. However, we restrict attention in the remainder of this section to the firms that reported having individual clients. The trends for this subset of firms are similar to those reported in Table 4.3. Note also that dually registered firms are classified here based on matches with the FOCUS-report data, which are available back to 2001. For our analysis of the fourth quarter of 2006, we used the slightly more inclusive set of matches that we obtained with the CRD data, which are available only in this final quarter but that include additional data that allow us to identify broker-dealers who are dually registered with one or more states but not the SEC (see Appendix A).

focuses on the firms in the IARD data in the fourth quarter of 2006. Detailed descriptive statistics are reported in Table C.2 in Appendix C.

Employees. As of the fourth quarter of 2006, dually registered firms tended to employ a much larger workforce than did the other investment advisers. Firms in the affiliated-activity group tended to be the next largest in this regard. For example, as reported in Table 4.4, 40 percent of dually registered firms reported having more than 100 employees, and 11 percent reported having more than 1,000. More than one-quarter of the affiliated-activity firms reported having more than 100 employees, but only 1 percent of these firms reported having more than 1,000 employees. In contrast, most of the firms of the other three types employed ten or fewer individuals. Only a small fraction of these other firms reported having more than 100 employees.

As one would expect, the reported frequency with which employees work as registered representatives of a broker-dealer varies greatly across these types of firms. As reported in Table 4.5, dually registered firms were the most likely to report large numbers of this type of employee, followed again by the affiliated-activity firms. Firms classified as neither dual nor affiliated were the least likely to report many, if any, employees who are registered representatives of a broker-dealer. About 37 percent of dually registered firms had at least 100 employees described this way, whereas 87 percent of firms in the neither-dual-nor-affiliated classification have no such employees. Only three of the 478 dually registered advisers reported having no such employees.

The entries in the table also indicate that 44 firms reported having more than 1,000 employees who are registered representatives of a broker-dealer. Not surprisingly, most of these firms—38, to be exact—were large, dually registered firms. Five of the six remaining firms fall in the affiliated-activity group, suggesting that these large numbers of employees are registered representatives of a broker-dealer that is a "related person." The remaining firm is classified as reportedly engaged as a broker-dealer, based on its Form ADV filing, but available information suggests that it too should be in the affiliated-activity classification. According to this large

Table 4.4
Advisers with Reported Number of Employees, by Adviser Type (7,395 Investment Advisory Firms That Have Individual Clients)

Employees	Dually Registered (478 firms) (%)	Reportedly Engaged as Broker-Dealer (75 firms) (%)	Registered Representative (798 firms) (%)	Affiliated Activity (1,051 firms) (%)	Neither Dual nor Affiliated (4,993 firms) (%)
1 to 10	15.9	52.0	65.2	23.0	63.0
11 to 50	11.7	14.7	21.4	16.5	20.5
51 to 100	31.0	25.3	11.9	34.4	14.5
101 to 250	18.8	4.0	1.4	19.4	1.7
251 to 500	5.2	0.0	0.0	3.8	0.1
501 to 1,000	6.1	1.3	0.1	1.7	0.1
>1,000	11.3	1.3	0.0	1.1	0.0

SOURCE: Employees, activities, and affiliations are from IARD data for the fourth quarter of 2006. Dually registered firms are determined by a match in IARD and CRD data.

Table 4.5
Advisers with Reported Number of Employees Who Are Registered Representatives of a Broker-Dealer, by Adviser Type (7,395 Investment Advisory Firms That Have Individual Clients)

Employees Who Are Registered Representatives of Broker-Dealers	Dually Registered (478 firms) (%)	Reportedly Engaged as Broker-Dealer (75 firms) (%)	Registered Representative (798 firms) (%)	Affiliated Activity (1,051 firms) (%)	Neither Dual nor Affiliated (4,993 firms) (%)
0	0.6	5.3	2.4	21.8	86.6
1 to 10	23.4	66.7	80.8	39.2	11.0
11 to 50	12.8	12.0	10.8	12.2	1.5
51 to 100	26.4	13.3	5.4	17.7	0.8
101 to 250	17.6	1.3	0.6	7.2	0.1
251 to 500	6.5	0.0	0.0	1.1	0.0
501 to 1,000	4.8	0.0	0.0	0.2	0.0
>1,000	7.9	1.3	0.0	0.6	0.0

SOURCE: Employees, activities, and affiliations are from IARD data for the fourth quarter of 2006. Dually registered firms are determined by a match in IARD and CRD data.

firm's Web site, it provides advisory services for a holding company, whereas a company with a similar name offers securities. That securities firm has a distinct CRD number in the CRD database; therefore, the advisory firm is not dually registered, according to our classification.[4]

As mentioned earlier, many firms also appear to be misclassified as registered representatives because of Form ADV reporting problems. The Investment Adviser Association and National Regulatory Services (2006) reported that only sole proprietorships should fall into this category, but fewer than 10 percent of these firms are sole proprietorships. Our Web searches, described in Appendix A, indicate that a great majority of the remaining firms have founders or principals who are employed as registered representatives of a broker-dealer, often a large firm with a distinct CRD number but with the same reported business address.

Assets under management. The IARD data on assets under management provide another indication of the disproportionate role of the firms that are dually registered as broker-dealers and the firms that are affiliated with registered broker-dealers. These findings, summarized in Table 4.6, are perfectly compatible with findings on the relative size of the workforce among these firms. Overall, dually registered firms constitute just more than 6 percent of all reporting firms but managed almost half of all accounts and more than 9 percent of all assets reported by the investment advisory firms with individual clients. Affiliated-activity firms constitute less than 15 percent of all reporting firms but reportedly managed more than one-fourth of all accounts and almost two-thirds of all assets. In contrast, the firms that are neither dually registered nor affiliated constitute more than two-thirds of all reporting firms but reportedly managed only about one-fifth of all accounts and one-fifth of all assets.

[4] In fact, we conducted searches for each of the firms that was reportedly engaged as a broker-dealer but was not contained in our databases of broker-dealers. As discussed in Appendix A, a small number of these firms were classified in FINRA's searchable database as inactive. A much larger number appear to be affiliated with broker-dealers, such as the large firm just discussed.

Table 4.6
Assets Under Management, by Adviser Type (7,177 Investment Advisory Firms That Have Individual Clients and Continuous and Regular Supervisory or Management Services to Securities Portfolios)

Assets Under Management	Dually Registered (455 firms) (per firm, $ millions)	Reportedly Engaged as Broker-Dealer (70 firms) (per firm, $ millions)	Registered Representative (785 firms) (per firm, $ millions)	Affiliated Activity (1,008 firms) (per firm, $ millions)	Neither Dual nor Affiliated (4,859 firms) (per firm, $ millions)
Discretionary accounts					
Mean	2,340	1,370	911	10,341	635
Median	79	49	41	385	74
Nondiscretionary accounts					
Mean	1,155	57	113	550	100
Median	35	0	10	0	0
Total					
Mean	3,495	1,427	1,024	10,891	735
Median	205	76	67	543	97

SOURCE: Employees, activities, and affiliations are from IARD data for the fourth quarter of 2006. Dual registrations are determined by a match in IARD and CRD data.

To characterize assets under management by these various types of firms, we report the means and medians of the distributions in Table 4.6. We see that the affiliated-activity firms tend to be the largest, managing more than $10 billion on average, with a median value of more than $500 million. The mean and median of total assets under management at dually registered firms are about $3.5 billion and $200 million, respectively. With about one-third of their reported assets under management in nondiscretionary accounts, the dually registered firms report a much larger share of assets in nondiscretionary accounts than do firms in any of the other classifications.

The mean of total assets under management by firms that are neither dually registered nor affiliated, $735 million, is by far the lowest among all five classifications. However, the distribution of assets across firms is less skewed than in the other cases. The median of total assets, $97 million, actually exceeds that of two groups, and the median of assets in discretionary accounts almost equals that of dually registered firms—$74 million versus $79 million. The median of assets in discretionary accounts at affiliated-activity firms is far greater than either of these—$385 million.

The amount and distribution of reported assets under management has changed markedly since 2001. As shown in Table 4.7, total assets under management reported by firms with individual clients fell slightly from the fourth quarter of 2001 to the fourth quarter of 2003 and then increased by more than 50 percent over the next three years. Almost one-third of this reported increase took place between 2005 and 2006, during which time it appears that the registration of hedge funds accounts for a sizable share of the jump in the number of firms.

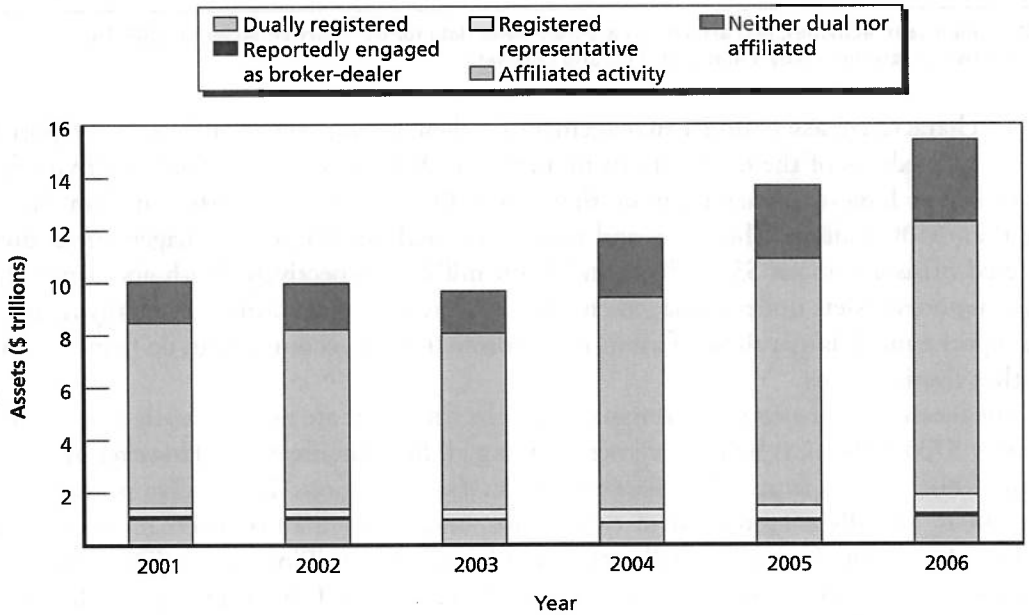
Note that all the overall growth in assets at firms with individual clients is attributable to assets in discretionary accounts. However, this finding does not apply equally to all types of firms. Figures 4.2 and 4.3 depict the overall growth in assets under management in

Table 4.7
Assets Under Management, 2001–2006: Investment Advisers That Have Individual Clients and Continuous and Regular Supervisory or Management Services to Securities Portfolio

Fourth Quarter of Year	Firms	All Accounts (assets, $ trillions)	Discretionary Accounts (assets, $ trillions)	Nondiscretionary Accounts (assets, $ trillions)
2001	5,442	11.85	10.05	1.81
2002	5,589	11.74	9.96	1.78
2003	5,754	11.29	9.66	1.64
2004	6,102	12.95	11.61	1.34
2005	6,483	15.16	13.65	1.52
2006	7,177	17.04	15.39	1.66

SOURCE: Assets under management reported in IARD.

Figure 4.2
Total Assets Under Management in Discretionary Accounts, by Year and Firm Type

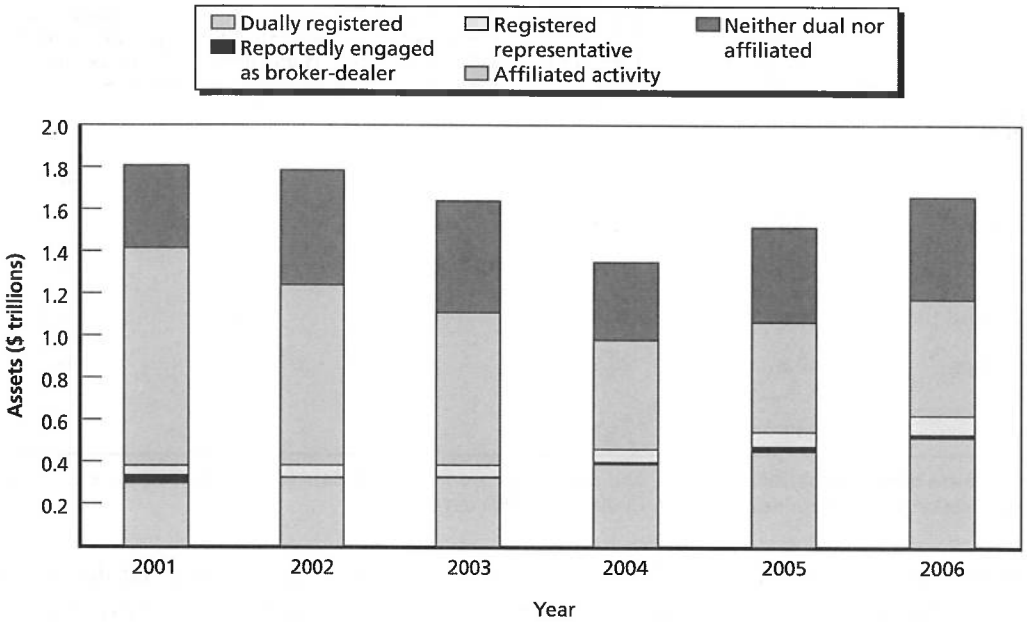


SOURCES: Assets under management reported in IARD data for the fourth quarter of each year. Firm type based on IARD and CRD data.

RAND *TR556-4.2*

discretionary accounts and the overall decline in those in nondiscretionary accounts, as well as the changing compositions of firm types at which these assets are managed. For example, dually registered firms actually reported a 17 percent decline in assets in discretionary accounts from 2001 through 2004, an 11 percent increase from 2004 to 2005, and another 16 percent increase from 2005 to 2006. In contrast, assets in nondiscretionary accounts at dually registered firms increased every year from 2001 through 2006, for a total increase of 75 percent over the period.

Figure 4.3
Total Assets Under Management in Nondiscretionary Accounts, by Year and Firm Type



SOURCES: Assets under management reported in IARD data for the fourth quarter of 2006. Firm type based on IARD and CRD data.
RAND *TR556-4.3*

Clearly, most of the growth in assets managed in discretionary accounts occurred at firms in the affiliated-activity group. The number of firms in this category grew by about 7 percent. The total amount of assets in discretionary accounts that these firms managed grew by almost half, constituting two-thirds of all assets in discretionary accounts at the end of 2006. Over the same period, firms classified as neither dual nor affiliated grew quickly. The number of firms in this group rose by almost half, and total assets in discretionary accounts that they managed nearly doubled, constituting one-fifth of all assets in discretionary accounts by the end of 2006.

Compensation. Almost all firms of each type reported receiving compensation based on a percentage of assets under management. Other forms of compensation vary widely from one group to another. For example, about half of the dually registered firms and firms classified as registered representatives reported receiving commissions, as do about one-third of firms reportedly engaged as broker-dealers. In contrast, less than 10 percent of the affiliated-activity firms and less than 5 percent of those firms that are neither dual nor affiliated receive commissions. (See Table 4.8.)

Firms in these last two groups, especially the affiliated-activity group, frequently reported receiving performance-based fees, as did those firms reportedly engaged as broker-dealers. In a related result shown in Table C.2 in Appendix C, we found that about one-third of affiliated-activity firms are classified as possible hedge funds using our methodology adapted from the *Evolution Revolution* reports. Almost 15 percent of firms that are neither dual nor affiliated are classified as possible hedge funds.

Table 4.8
Reported Forms of Compensation, by Adviser Type

Form of Compensation	Dually Registered (478 firms) (%)	Reportedly Engaged as Broker-Dealer (75 firms) (%)	Registered Representative (798 firms) (%)	Affiliated Activity (1,051 firms) (%)	Neither Dual nor Affiliated (4,993 firms) (%)
Assets under management	97.3	96.0	97.7	97.5	97.1
Hourly	45.8	41.3	66.5	29.0	42.8
Subscription	1.0	2.7	1.8	2.4	1.6
Fixed	55.6	42.7	59.9	47.5	48.3
Commissions	50.4	36.0	47.7	9.9	4.0
Performance based	12.3	25.3	8.4	38.5	19.1
Other	14.0	5.3	9.1	13.6	7.5

SOURCE: Forms of compensation, activities, and affiliations are from IARD data for the fourth quarter of 2006. Dual registration was determined by match in IARD and CRD data.

Business activities. Almost all firms of each type reported providing portfolio management for individuals or small businesses, but the types vary considerably in the other advisory activities they reported. As shown in Table 4.9, more than 40 percent of dually registered firms sponsored a wrap-fee program, whereas the largest share of any other group is just more than 10 percent—both the affiliated-activity firms and those reportedly engaged as broker-dealers. Less than 2 percent of firms that are neither dual nor affiliated reported sponsoring a wrap-fee program. The results for actually managing a wrap-fee program are very different. The largest share is found in the affiliated-activity group (30 percent), followed by dually registered firms (27 percent). The shares for the remaining three groups range from 8 to 12 percent.

Firms in the affiliated-activity category were the least likely to report providing financial planning (33 percent) and the most likely to report providing portfolio management for investment companies (32 percent). In contrast, firms classified as registered representatives were the most likely to report providing financial planning (79 percent) and least likely to report providing portfolio management for investment companies (5 percent). The percentages for dually registered firms varied similarly (62 versus 7 percent).

Our classification scheme captured other variations in business services other than advisory activities. We note here that all but eight of the firms that are classified as dually registered actually reported that they were engaged in business as a broker-dealer. About 8 percent of dually registered firms reported being engaged as a registered representative of a broker-dealer, and half reported being engaged as an insurance broker or agent. More than half of the firms classified as reportedly engaged as a broker-dealer also reported being engaged as a registered representative of a broker-dealer, and two-fifths reported engagement as an insurance broker or agent (see Table 4.10). Almost three-quarters of the firms in the registered representative group also reported being engaged as an insurance broker or agent. The remaining two groups—affiliated-activity firms and neither-dual-nor-affiliated-activity firms—rarely reported any of the other business activities listed on Form ADV.

Table 4.9
Reported Advisory Activities, by Adviser Type

Advisory Activity	Dually Registered (478 firms) (%)	Reportedly Engaged as Broker-Dealer (75 firms) (%)	Registered Representative (798 firms) (%)	Affiliated Activity (1,051 firms) (%)	Neither Dual nor Affiliated (4,993 firms) (%)
Financial planning	62.1	50.0	78.8	32.9	46.7
Portfolio management for individuals or small businesses	92.1	91.9	96.6	90.9	95.1
Portfolio management for investment companies	6.7	16.0	4.5	32.1	7.5
Pension consulting	24.1	20.0	30.1	18.6	15.7
Sponsor wrap-fee program	40.8	10.8	5.3	10.3	1.7
Portfolio manager for wrap-fee program	26.8	12.2	7.9	29.8	9.9

SOURCE: Activities and affiliations are from IARD data for the fourth quarter of 2006. Dual registration was determined by match in IARD and CRD data.

Table 4.10
Other Reported Business Activities, by Adviser Type

Engaged in Business	Dually Registered (478 firms) (%)	Reportedly Engaged as Broker-Dealer (75 firms) (%)	Registered Representative (798 firms) (%)	Affiliated Activity (1,051 firms) (%)	Neither Dual nor Affiliated (4,993 firms) (%)
Broker-dealer	98.3	100.0	0.0	0.0	0.0
Registered representative of a broker-dealer	8.2	52.0	100.0	0.0	0.0
Insurance broker or agent	50.0	40.0	73.8	2.9	6.3

SOURCE: Activities and affiliations are from IARD data for the fourth quarter of 2006. Dual registration was determined by match in IARD and CRD data.

Affiliations. We conclude this section by describing the activities in which the related person whom some firms identified as affiliated with them engage. Table 4.11 illustrates three that are neither dually registered nor affiliated occasionally reported on related persons, usually main observations. First, the groups of firms that reported providing many of the nonadvisory activities just discussed—dually registered, reportedly engaged as broker-dealer, and registered representative—also frequently reported affiliations with firms engaged in brokerage and other activities. Second, the firms in the affiliated-activity group frequently reported having related persons engaged in financial service activities other than just brokerage activities. Third, firms other investment advisers or insurance companies or agencies.

Table 4.11
Financial-Industry Affiliations, by Adviser Type

Related Person	Dually Registered (478 firms) (%)	Reportedly Engaged as Broker-Dealer (75 firms) (%)	Registered Representative (798 firms) (%)	Affiliated Activity (1,051 firms) (%)	Neither Dual nor Affiliated (4,993 firms) (%)
Broker-dealer, municipal- or government-securities dealer	59.8	82.7	32.5	100.0	0.0
Investment company	28.0	17.6	3.8	42.2	4.2
Other investment adviser	53.1	25.7	26.1	64.4	13.3
Banking or thrift institution	29.1	12.0	3.9	34.1	2.4
Insurance company or agency	51.0	33.3	27.4	48.0	5.9

SOURCE: Activities and affiliations are from IARD data for the fourth quarter of 2006. Dual registration was determined by match in IARD and CRD data.

Broker-Dealers

Attributes of Broker-Dealers: Fourth Quarter of 2006

The CRD data describe a heterogeneous collection of 5,224 broker-dealers listed in the database in the fourth quarter of 2006. Almost 97 percent of these firms are registered under §15(b) of the Securities Exchange Act of 1934 (48 Stat. 881). For the purpose of regulatory filings, a key defining characteristic concerns whether or not the firm clears or carries customer accounts. Generally, firms that clear or carry customer accounts file the FOCUS Part II report, whereas the remaining firms file the abbreviated Part IIA report.[5] The CRD data include several variables related to these activities. Information on the type of FOCUS report provides a convenient summary measure. Among the 5,224 broker-dealers in the CRD database, we identify 4,463 Part IIA reports and 544 Part II reports in the fourth quarter of 2006. No report was found for the remaining 217 broker-dealers. In addition, our FOCUS data include 61 broker-dealers that filed Part IIA reports but are not listed in the CRD database.

Descriptive statistics for the full set of firms in the CRD database are reported in Table C.3 in Appendix C. The table describes subsamples of firms differentiated according to the data that were available for the fourth quarter of 2006—CRD data or FOCUS report Part II or Part IIA. As discussed in Appendix A, broker-dealers report financial data for FOCUS, with much more detail provided in Part II than in Part IIA.

[5] The *User Guide to Securities Industry DataBank* describes "commission introducing" firms as "broker-dealers which only 'introduce' commission business but don't carry or clear their own customer accounts," noting further that this group files Part IIA, whereas other firms file Part II (SIFMA, undated[b], p. 5). See the discussion in Appendix A for further details on filing instructions.

Balance-sheet and income statements. The FOCUS data document the great variation in size and scope of broker-dealers' operations. In Tables 4.12 and 4.13 (and in Table C.4 in Appendix C), we summarize core pieces of these data across all firms and conditional on Part II or Part IIA filing status. In a later section, we track the data over time.

The distributions of assets and ownership equity are heavily skewed, with a group of firms being vastly larger than the rest. The mean of total assets reported in the fourth quarter of 2006 is more than $1 billion, but the median is less than $500,000. The difference between mean and median ownership equity is not as vast—$32 million and $340,000, respectively—but still quite striking. As another indication of the variability across firms, note that the standard deviation is more than ten times larger than the mean for both assets and ownership equity.

Much of this variation is associated with filing status, with Part II filers tending to be vastly larger than Part IIA filers. The means of reported assets and ownership equity among Part II filers are $10 billion and $250 million, respectively, whereas the corresponding means among Part IIA filers are about $25 million and $7 million. See Table 4.14.

The quarterly income statements further document the tremendous variation across firms. The means of revenues and expenses are each about 70 times larger than the corresponding medians. As is the case with assets and ownership equity, the standard deviation is more than ten times larger than the mean for both revenues and expenses.

In terms of revenue streams, both Part II and Part IIA filers generated the lion's share of their reported commissions from exchange-traded securities. Totaling across all sources, Part II filers reported generating almost 20 times the commissions of Part IIA filers in the preceding quarter, with means of $15 million and $810,000, respectively. As reported in Table C.4 in Appendix C, a subset of both types of firms reported income from "fees for account supervision, investment advisory and administrative services" (field 3975), generating mean

Table 4.12
Balance-Sheet Items (5,068 Broker-Dealers)

Item	Mean	Standard Deviation	Minimum	Median	Maximum
Assets ($ thousands)	1,082,608	16,800,000	0.5	494	579,000,000
Ownership equity ($ thousands)	32,455	334,108	–5,518	342	10,800,000

SOURCE: FOCUS data for the fourth quarter of 2006.

Table 4.13
Income-Statement Items (5,068 Broker-Dealers)

Item	Mean ($ thousands)	Standard Deviation ($ thousands)	Minimum ($ thousands)	Median ($ thousands)	Maximum ($ thousands)
Commissions	2,337	18,233	–112	10	609,979
Revenue	22,950	306,591	–12,523	319	10,214,610
Expenses	20,736	281,331	–10,802	307	9,733,083
Income before federal taxes	2,214	29,966	–147,934	1	1,249,062

SOURCE: FOCUS data for the fourth quarter of 2006.

Table 4.14
Reported Fees for Account Supervision, Investment Advisory, and Administrative Services (field 3975) as Percentage of Total Revenue (field 4030), by Report of Advisory Services and FOCUS Filing (5,007 Broker-Dealers)

Service	All FOCUS Filers (% total revenue)	Part II Filers (% total revenue)	Part IIA Filers (% total revenue)
All firms	6.6	5.6	12.8
Firms reporting providing investment advisory services	8.2	7.0	23.3
Firms reporting not providing investment advisory services	4.1	3.0	7.8

SOURCE: Fees and revenues are from FOCUS data for the fourth quarter of 2006. Advisory services are from CRD data for the same quarter.

quarterly revenues of about $25 million and $1.8 million, respectively, among Part II and Part IIA filers reporting any such revenues.

Net income tells much the same story, with Part II filers reporting an average of about 30 or 35 times the pretax income of Part IIA filers, whether measured by the quarter or the most recent month. In terms of after-tax income, the disparity is somewhat lower. In sum, then, we observe a scale of Part II filers that dwarfs that of Part IIA filers by virtually any measure, a finding that is not too surprising.

Business activities. The CRD data document the services provided by the firms to generate these revenues. The reports of investment advisory services are of primary interest for this study. According to our CRD data from the fourth quarter of 2006, more than 20 percent of the broker-dealers reported on Form BD that they were engaged in or expected to be engaged in investment advisory services. The share among Part II filers (28 percent) exceeded that of Part IIA filers (21 percent).

We merged the FOCUS data with the CRD data to assess the share of broker-dealers' revenues that may be attributed to investment advisory services. The share of total revenues, one simple measure, seems to be relatively small. That is, among all firms, about 7 percent of total quarterly revenues were reported in field 3975, which includes *but is not limited to* investment advisory fees. Even among firms that reported being engaged in the investment advisory–service business, this share is just 8 percent.

However, further inspection of the data indicates that investment advisory fees may have accounted for a large share of revenues at smaller firms. For example, among Part IIA filers, about 13 percent of total quarterly revenues were reported in field 3975. These fees constituted almost one-quarter of all revenues reported by Part IIA filers that reported being engaged in the investment advisory business.

The CRD data describe a range of other business activities in which the broker-dealers were engaged. Form BD requires that broker-dealers report on 28 different activities. Part II filers were more likely to report engagement in all but seven activities. The largest differences between Part II and Part IIA percentages were reported for the following business activities: exchange member engaged in floor activities (25 percent for Part II filers versus 2 percent for Part IIA filers), "underwriter or selling group participant (corporate securities other than

mutual funds)" (46 percent versus 21 percent), U.S. government–securities dealer (31 percent versus 7 percent), municipal-securities dealer (35 percent versus 11 percent), and trading securities for the broker-dealer's own account (46 percent versus 17 percent). In contrast, Part II filers were less likely to report being engaged in the business of mutual fund retailing (44 percent versus 54 percent) and private placement of securities (46 percent versus 50 percent), which were the two most prevalent businesses reported by Part IIA filers. In addition, more than one-third of Part IIA filers reported selling variable life insurance or annuities, whereas only one-quarter of Part II filers did so.

Affiliations. In addition to typically conducting more of these reported activities, Part II filers were also more likely to report that they directly or indirectly control, are controlled by, or are under common control with another entity engaged in the securities or investment advisory business (69 percent of Part II filers versus 38 percent of Part IIA filers). Almost 30 percent of Part II filers reported that they were directly or indirectly controlled by a bank holding company or other banking institution, whereas only 5 percent of Part IIA filers reported such an affiliation.

Civil, criminal, and regulatory enforcement. One potentially informative reporting item in the CRD database concerned past or pending experience with criminal, civil, or regulatory enforcement actions. Although the data were not sufficiently rich to provide insights on the particulars or dates of such enforcement episodes, we could consider how such reports correlated with other firm attributes.

Although we did not engage in an exhaustive analysis of this question, we used a statistical model to predict enforcement actions conditional on a number of control variables taken from FOCUS reports and CRD data. Many of these control variables themselves tend to be associated with pending or previous enforcement activity. We found that the age of the firm, for example, tends to be positively associated with reporting such experiences. This result is not surprising, since Form BD requires firms to report whether they have *ever* faced each type of charge (that is, not just during the most recent quarter). Part II filers are also more likely to face each type of enforcement action, even linearly controlling for various measures of scale. Firms that reported making interdealer markets were also more likely, conditional on other factors, to report susceptibility to enforcement activity across the board, with the exception of civil litigation.

Controlling for these and other factors, we found that brokerage firms reporting investment advisory services were generally *more* likely to report also being subject to some sort of prior or pending enforcement action. In other words, holding constant a number of scale and organizational characteristics, such brokerage firms were more likely than their non–investment advisory counterparts to have been subject to some sort of enforcement proceeding. The economic and statistical significance of this predictive effect is not uniform across all such enforcement actions, however. In particular, it appears to be most pronounced in criminal, other regulatory (including foreign and state), civil, and current pending enforcement actions but is not statistically different from zero in past enforcement actions initiated by the SEC or an SRO. See Table C.5 in Appendix C for more detailed results.

Some caution is warranted in interpreting these estimates. Although engagement in investment advisory services appears to predict at least certain types of enforcement activity, there may be multiple explanations for that finding. Notwithstanding controlling for a number of financial and nonfinancial variables, for example, we cannot rule out the possibility that broker-dealers that report dual activity (on Form BD) also have different characteristics

in another important dimension not captured in the data, and it is *that* dimension that in fact causes the firm's greater susceptibility to enforcement proceedings.

Comparison of Brokerage Firms by Dual and Affiliated-Activity Classification

In this section, we provide more detailed evidence on the relationships among investment advisers and broker-dealers, this time from the broker-dealers' side. This analysis requires that we once again specify a systematic classification scheme for firms. We use variables contained in the databases we received and matches across databases to define indicators of dual and affiliated activity.

In particular, we classify each of the brokerage firms as one of five mutually exclusive and exhaustive types:

1. *Dually registered (database match):* A matching CRD number is found in our IARD database on investment advisers for the corresponding business quarter.
2. *Dually registered (Web-site match):* A matching record was found in the SEC Web site's searchable database of investment advisers—e.g., state registered (see Appendix A)—but no matching CRD number is found in our IARD database (i.e., not type 1, a database-matched dual registration).
3. *Reportedly engaged in investment advisory services business:* CRD data indicate that the firm provided investment advisory services, but we found no matching CRD number in our IARD database and no matching record in the SEC Web site's searchable database (i.e., not dually registered by either database or Web search).
4. *Affiliated activity:* CRD data indicate that the firm directly or indirectly controls, is controlled by, or is under common control with another entity engaged in the securities or investment advisory business, and the firm is not of type 1, 2, or 3 (i.e., not dually registered and not reportedly engaged in investment advisory services).
5. *Neither dual nor affiliated activity:* The firm is not of type 1, 2, 3, or 4.

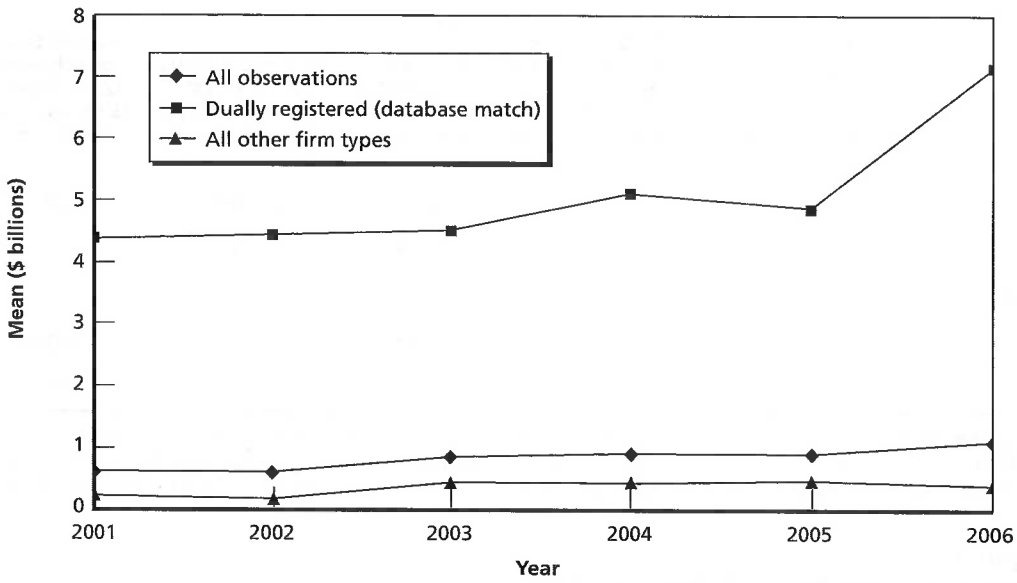
As of the fourth quarter of 2006, almost half of all firms in the CRD data were of the fifth type (neither dual nor affiliated activity) and almost one-third were of the fourth type (affiliated activity). As previously discussed, about 10 percent of broker-dealers were identified as dually registered based on a database match. Another 7 percent were identified as dually registered based on a Web-site match. The remaining 4 percent of broker-dealers reported being engaged in the investment advisory business, but we found no evidence of dual registration. Detailed descriptive statistics for firms of each type are reported in Table C.6 in Appendix C.

In contrast to our data on investment advisers, the data on broker-dealers do not allow us to track the number of firms in each classification back over time. Instead, we can only track whether or not a broker-dealer falls into the dually registered (database-match) category based on matches between the FOCUS and IARD data. These shares were reported at the beginning of this chapter in Figure 4.1.

We turn our attention now to a comparison of firms across types. Some of the discussion focuses on the fourth quarter of 2006, for which we use the classification scheme detailed already. We begin with comparisons of trends using the available indicator of dual registration based on FOCUS data.

Balance-sheet and income statements. Consider first the total assets reported by broker-dealers during the sample period. As Figure 4.4 illustrates, mean reported assets tended to

Figure 4.4
Mean of Total Assets, by Year and Firm Type



SOURCES: Assets are from FOCUS reports. Firm type was determined from IARD and FOCUS data.
RAND *TR556-4.4*

increase during the entire period for the dually registered (database-match) firms and for the other firms. What is also immediately clear is that dual registrants represent far larger operations than their respective counterparts, as measured by assets at the beginning of the period. More dramatically, this difference in size tends to magnify, approximately doubling over the period studied. Reported levels of ownership equity vary similarly.

Based on our previous results, it should come as no surprise that these dually registered firms were more likely to file FOCUS report Part II than were the other firms. As reported in Table C.6 in Appendix C, about 23 percent of dually registered (database-match) firms filed Part II in 2006, whereas only 5 percent of dually registered (Web site–match) firms did so. Among the other types, the shares filing Part II reports were 6 percent of those reportedly engaged in investment advisory business, 16 percent of affiliated-activity firms, and 5 percent of the neither dually registered nor affiliated firms.

Thus, viewed in this way, the affiliated-activity firms were more similar to the dually registered (database-match) firms than were either of the other two types that reported investment advisory services. The entries in Table 4.15 reinforce this finding. That is, firms in the dually registered (database-match) group tend to be much larger than the rest, both in total assets and in ownership equity reported in the fourth quarter of 2006. Firms in the affiliated-activity category are a distant second. When comparing means, firms reportedly engaged in investment advisory services appear to be considerable bigger than the dually registered (Web site–match) firms, but the finding is reversed when comparing medians.

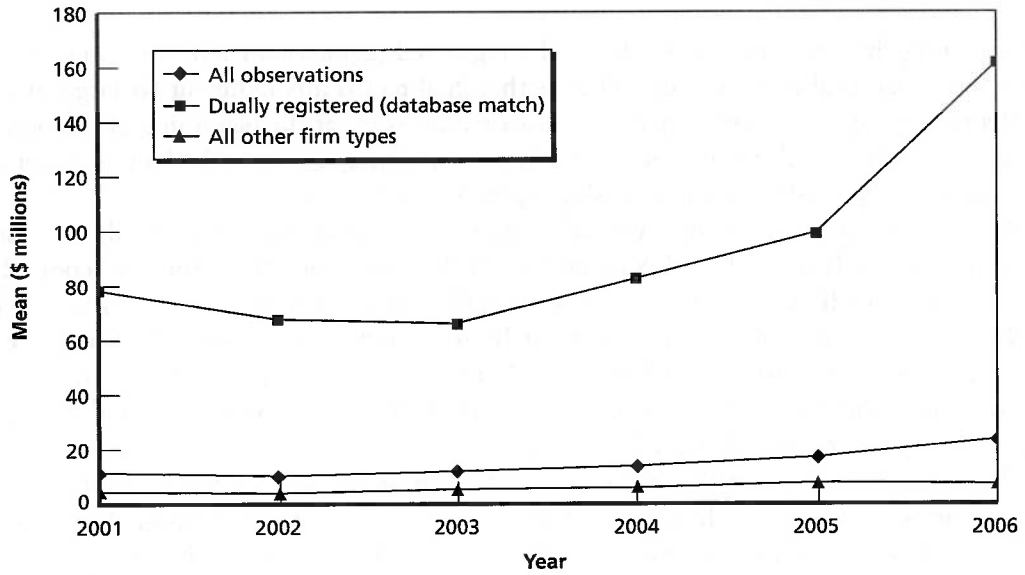
Turning now to items from the income statement, the mean of total revenues varied over the period in much the same way as total assets did. Figure 4.5 and Table 5.16 depict these trends. Again, the mean for dually registered firms was much higher at the beginning of the period, and the gap grew considerably over the five years. Total expenses varied similarly,

Table 4.15
Balance-Sheet Items, by Firm Type (5,007 Broker-Dealers with Both CRD and FOCUS Report Data)

Item	Dually Registered (database match) (536 firms) ($ thousands)	Dually Registered (Web-site match) (361 firms) ($ thousands)	Reportedly Engaged in Investment Advisory Services (230 firms) ($ thousands)	Affiliated Activity (1,610 firms) ($ thousands)	Neither Dual nor Affiliated (2,270 firms) ($ thousands)
Assets					
Mean	7,081,563	4,988	513,849	943,697	12,041
Median	3,721	475	448	937	220
Ownership equity					
Mean	183,927	3,062	14,581	31,277	3,266
Median	2,019	296	271	592	159

SOURCES: Balance-sheet items are from FOCUS data for the fourth quarter of 2006. Activities and affiliations are from CRD data for the same quarter. Database-matched dual registrations were determined from match in IARD and CRD data. Web site–matched dual registrations were determined from match in SEC Web site and CRD data.

Figure 4.5
Mean of Total Revenue, by Year and Firm Type



SOURCES: Revenue is from FOCUS reports. Firm type was determined from IARD and FOCUS data.
RAND *TR556-4.5*

yielding quite a different result for quarterly net income. As depicted in Figure 4.6, the mean of final-quarter net income among the dually registered firms fluctuated considerably, reaching a trough with losses at the end of 2002 before rebounding strongly, especially between the

Table 4.16
Income-Statement Items, by Firm Type (5,007 Broker-Dealers)

Item	Dually Registered (database match) (536 firms) ($ thousands)	Dually Registered (Web-site match) (361 firms) ($ thousands)	Reportedly Engaged in Investment Advisory Services (230 firms) ($ thousands)	Affiliated Activity (1,610 firms) ($ thousands)	Neither Dual nor Affiliated (2,270 firms) ($ thousands)
Commissions					
Mean	12,685	946	488	2,263	414
Median	405	85	12	6	0
Revenue					
Mean	160,685	3,482	13,080	13,779	1,339
Median	2,888	394	223	531	128
Expenses					
Mean	146,420	3,387	12,011	12,325	1,062
Median	2,646	392	236	497	138
Income before federal taxes					
Mean	14,266	95	1,069	1,454	277
Median	66	2	1	7	–1

SOURCES: Income-statement items are from FOCUS data for the fourth quarter of 2006. Activities and affiliations are from CRD data for the same quarter. Database-matched dual registrations were determined from match in IARD and CRD data. Web site–matched dual registrations were determined from match in SEC Web site and CRD data.

fourth quarter of 2005 and the fourth quarter of 2006. The mean reported for the final quarter of each year by the other firms grew more steadily throughout the period.[6]

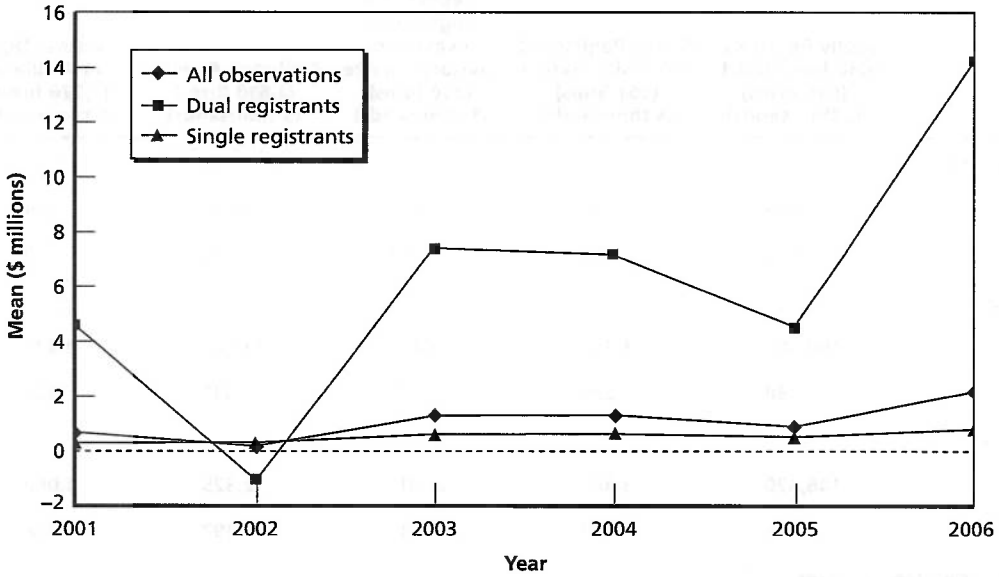
Focusing again on the fourth quarter of 2006, we can see how the reports tended to vary across the five classifications of firms. The story here is much the same as for the balance-sheet items with respect to the overall size of the operations.[7] However, different income-statement items and different statistics—i.e., means and medians—give varying indications of the relative sizes of operations across classifications but for the extremely large, dually registered firms just discussed.

Business activities. The key feature that firms from the first three categories (dually registered in database or by Web-site match or reportedly engaged in advisory services) have in common is that regulatory filings indicate they are all engaged in investment advisory services. However, as reported in Table C.6 in Appendix C, 47 of the 543 dually registered (CRD database-match) firms actually did not report engagement in this business activity. Classification in any of the other four groups is determined in part by whether the firm reported investment advisory services.

[6] For more detailed analysis of such trends, see Appendix H.

[7] The mean of revenues among firms reportedly engaged in investment advisory services is surprisingly high, especially relative to the mean of commissions. Further inspection indicates that this result is heavily influenced by one observation with very incomplete and perhaps erroneous entries for the income-statement items in the FOCUS data.

Figure 4.6
Mean of Net Income Before Federal Taxes, by Year and Firm Type



SOURCES: Net income is from FOCUS reports. Firm type was determined from IARD and FOCUS data.
RAND *TR556-4.6*

We now consider the share of broker-dealers' revenues that may be attributed to investment advisory services, based once again on revenues reported in field 3975 of the FOCUS data and the CRD business-activity data. We see striking differences in revenue shares across firm types, reported in Table 4.17. Dually registered (Web site–match) brokerage firms—that is, mostly state-registered investment advisers—report more than one-quarter of revenues in the form of fees for account supervision, investment advisory, and administrative services. The revenue shares range from just 3 to 7 percent for the other categories of firms.

Table 4.17
Reported Fees for Account Supervision, Investment Advisory, and Administrative Services (field 3975) as Percentage of Total Revenue (field 4030), by Firm Type (5,007 Broker-Dealers)

Firm	Dually Registered (database match) (536 firms) (%)	Dually Registered (Web-site match) (361 firms) (%)	Reportedly Engaged in Investment Advisory Services (230 firms) (%)	Affiliated Activity (1,610 firms) (%)	Neither Dual nor Affiliated (2,270 firms) (%)
All firms	7.0	26.4	2.7	4.6	7.4
Firms filing FOCUS report Part II	6.3	1.4	0.8	2.8	1.1
Firms filing FOCUS report Part IIA	18.3	29.3	11.9	7.9	9.6

SOURCES: Fees and revenues are from FOCUS reports for the fourth quarter of 2006. Activities and affiliations are from CRD data from the same quarter. Database-matched dual registrations were determined from match in IARD and CRD data. Web site–matched dual registrations were determined from match in SEC Web site and CRD data.

Much of this variation is associated with the type of FOCUS report filed and, thus, the size and scope of the operations. Among Part II filers, the highest revenue share is 6 percent for dually registered (database-match) firms, followed by the affiliated-activity firms with 3 percent. The other categories include a small fraction, and often a small number, of Part II filers, and these firms typically reported little if any fees in field 3975. In contrast, the smaller Part IIA filers reported revenue shares ranging from 8 percent among affiliated-activity firms to 29 percent among dually registered (Web site–match) firms.

These categories of firms also differ in the range of other services offered. As reported in Table 4.18 (excerpted from Table C.6 in Appendix C), 40 percent or more of each type reported being engaged in the following businesses: retailing corporate-equity securities over the counter, mutual fund retailing, and private placement of securities. Even these percentages vary considerably across types. Generally, the dually registered firms are the most likely to report any service, followed by the firms that were reportedly engaged in investment advisory services, then the affiliated-activity firms, and finally firms that are neither dually registered nor affiliated.

Affiliations. Affiliations with other firms are extremely common throughout the brokerage industry. All firms in the first four categories reported affiliations. Clearly, the firms in the affiliated-activity group reported affiliations with other firms engaged in the securities or investment advisory business. But so do many other firms. As reported in Table C.6 in Appendix C, more than half of the dually registered (database-match) firms also reported such an affiliation, as did 17 percent of dually registered (Web site–match) firms and 43 percent of other firms reportedly engaged in investment advisory services. Perhaps many of the affiliations in the last group are associated with the reported provision of advisory services without corresponding evidence of dual registration.

Finally, a considerable fraction of firms in all but one group—neither dual nor affiliated firms—reported being directly or indirectly controlled by a bank holding company or other banking institution. We previously found that Part II filers were much more likely to report such affiliations. Not surprisingly, these reports were most frequently given by the dually registered (database-match) firms (16 percent), followed by affiliated-activity firms (13 percent).

Conclusions

In this chapter, we have presented a range of descriptive statistics based on data provided in regulatory filings of thousands of investment advisers and broker-dealers. We have also conducted a closer analysis of the data on firms that reported offering both brokerage and advisory services or being affiliated with firms that offer the complementary service. This analysis was intended to clarify the distinctions between such firms and those that specialize solely in brokerage or advisory services.

Based on this analysis, we are able to reach some conclusions. The first one, however, concerns the limitations of what we can accomplish with the available data. We had access to extensive databases based on regulatory filings, but they were often not strictly comparable. The nature and extent of the disclosures made by each type of firm differ considerably. For example, while the FOCUS reports provide a relatively detailed picture of the financial condition of registered broker-dealers, the IARD data tend to focus primarily on organizational characteristics (such as activities and employees), with very little financial information (beyond

Table 4.18
Business Activities, by Firm Type (5,007 Broker-Dealers)

Type of Business in Which Broker-Dealer Engages	Dually Registered (database match) (536 firms) (%)	Dually Registered (Web-site match) (361 firms) (%)	Reportedly Engaged in Investment Advisory Services (230 firms) (%)	Affiliated Activity (1,610 firms) (%)	Neither Dual nor Affiliated (2,270 firms) (%)
Exchange member engaged in floor activities	14.2	3.5	1.7	6.0	3.1
Broker-dealer making interdealer markets in corporate securities over the counter	14.5	9.5	10.6	7.5	5.0
Broker-dealer retailing corporate-equity securities over the counter	78.1	81.6	64.7	47.3	39.7
Broker-dealer selling corporate-debt securities	70.0	71.4	55.3	39.2	29.2
Underwriter or selling-group participant (corporate securities other than mutual funds)	37.8	35.4	37.0	23.0	17.6
Mutual fund retailer	81.4	91.6	66.8	47.9	40.6
U.S. government–securities dealer	23.8	13.8	16.6	8.6	5.4
Municipal-securities dealer	32.4	21.6	22.6	10.3	8.3
Broker-dealer selling variable life insurance or annuities	70.9	78.6	48.5	32.5	22.0
Investment advisory services	91.3	100.0	100.0	0.0	0.0
Trading securities for own account	32.0	22.2	25.5	22.3	15.0
Networking, kiosk, or similar arrangement with insurance company or agency	9.9	4.3	3.0	1.4	0.3

SOURCES: Activities and affiliations are from CRD data for the fourth quarter of 2006. Database-matched dual registrations are determined from match in IARD and CRD data. Web site–matched dual registrations are determined from match in SEC Web site and CRD data.

reports about assets under management). Moreover, comparison across the data sets suggests that many of the filings are likely to have inaccuracies within them, which, in turn, yield discrepancies among alternative methods for identifying firms that simultaneously engage in both brokerage and advisory activities. Ultimately, then, it is difficult to make systematic and conclusive comparisons between the different types of firms.

By comparing details across databases, we noted many inconsistencies in the information reported. For example, we noted that many investment advisory firms that were not sole proprietorships reported being engaged as registered representatives of broker-dealers. Other investment advisory firms reported being engaged as broker-dealers, but we could find no evidence that they were dually registered. In most of these cases, the firms appear to be affiliated in some way with a broker-dealer with a distinct CRD number, including one investment adviser that reported having more than 1,000 employees who were registered representatives of a broker-dealer. These findings suggest that many financial service professionals themselves are confused about how they should be reporting their activities.

Nevertheless, our analysis of about 15,000 distinct firms from the fourth quarter of 2006 reveals that most of them were reportedly engaged, either directly or indirectly, as either an investment adviser or as a broker-dealer but not both. Many others were directly engaged in only one type of activity but were affiliated with a firm engaged in the other type. Finally, the remainder—a minority of firms—were directly engaged in both brokerage and advisory activities.

As the economic scope of a firm grows, it tends to offer a much fuller range of services and consequently either is affiliated with other financial service firms or conducts a significant amount of business in both the investment advisory and brokerage fields. Smaller firms, which are much more numerous, tend to provide a more limited and focused range of either investment advisory or brokerage services. Still, they frequently reported some sort of affiliation with firms providing the complementary service.

Among firms that are either dually registered or affiliated with firms that offer complementary services, the advisory and brokerage services provided may be difficult to disentangle. Some corporations may have multiple subsidiaries or business units, each registered separately as an investment adviser or broker-dealer, but our data do not identify these relationships. To complicate matters further, some solely registered investment advisory firms have employees who are registered representatives of a broker-dealer. Quite frequently, one such employee is the sole proprietor or founder of a small investment advisory firm.

Other unique aspects of the dually registered firms also warrant mention. The total population of broker-dealers has consistently shrunk over the past five years, but the total number of dually registered firms (based on an IARD-FOCUS match) has remained relatively constant (between 500 and 550 per year). Further, there has been discernible growth in the population of SEC-registered investment firms during the same period (even excluding 2006, which may be an aberrational year), the lion's share of which do not appear to operate in a dually registered fashion.

In addition, dual registrants appear more likely than other registered broker-dealers to report being subject to some sort of past or pending enforcement action. Not only is this true in the aggregate, but it appears to remain true even after attempting to control for a number of variables related to size, scale, and other organizational characteristics.

Although their raw numbers have remained somewhat constant, dual registrants have, in many ways, become much more significant. From 2001 to 2006, for example, dual registrants

grew discernibly as a proportion of Form BD filers. They also got bigger, spent more, and tended to generate higher net incomes over the entire period than other firms. Much of this variation may be attributed to differences between FOCUS report Part II and Part IIA filers. The March 2008 version of this report will include more detailed analysis of such trends.

While the differences described in this chapter come through in the statistics produced based on the administrative data, it is not clear how these differences are presented to investors. What appear in the data to be affiliations between two or more registrants could be viewed by customers as a single business or as completely distinct entities. In the next chapter, we examine how these activities are portrayed to investors and what investors understand about the information they are given.

CHAPTER FIVE

Documentation and Information Provided by Firms

To better inform our description of current practices in the industry, we collected and examined business documents used by selected investment advisers and broker-dealers sampled from the complete listing of firms in the administrative databases analyzed in Chapter Four. We also conducted 34 interviews with financial professionals from brokerage and investment advisory firms. We collected this information to address the following questions:

- How do firms interact with current and prospective clients, especially with respect to the provision of services and the presentation thereof?
- How do firms operate to provide these services, including interactions with other financial service providers?
- What do firms disclose to clients about these relationships and their services?
- What are firms' perspectives on current policy issues?

The remainder of this chapter first describes the methods used in selecting firms and analyzing information from both the document collection and firm interviews. We then discuss parallel results from analysis of the documents and firm interviews and additional information obtained only through firm interviews. In an effort to illustrate the complexity of how many of these firms operate and their affiliations with other firms, we close the chapter by providing some case studies of sample firms.

Document-Collection Methodology

As noted in the introduction to Chapter Four, the unit of observation in our administrative data determines the definition of a *firm*, and that definition is maintained throughout this analysis. In practice, however, what appears to a customer to be a single company may actually be composed of multiple registrants in these databases—i.e., multiple firms. This analysis was designed to illustrate these relationships for a probability sample of firms.

Despite our numerous attempts via multiple contact methods to recruit firms to participate in this study, we received documents from only 29 sampled firms deemed eligible to participate in the study, out of a total sample size of 164 firms, and most of these submissions only partially complied with our requests. We were able to supplement the submitted documents with an extensive review of publicly available Web sites maintained by another 34 firms from the probability sample. Still, many of our findings must be seen as anecdotal. However,

the sampling process ensures that these anecdotes pertain to both the largest firms and selected representatives of the remaining brokerage and investment advisory firms.

In the following sections, we summarize our methods and refer the reader to a more detailed account in Appendix D.

Document Collection and Review

We originally set a target of 75 firms from which to collect and examine business documents. The documents we sought were marketing and sales documents (e.g., brochures, flyers) advertising the firm itself, its range of services, or individual products; regulatory documents (e.g., disclosure statements, disclaimers) required by federal and state regulators and SROs; account-based documents (e.g., application forms, account agreements, transaction confirmations, account statements); and interfirm agreements and contracts among investment advisers, broker-dealers, and other financial institutions, such as mutual fund managers.

Sampling methods. We designed a sampling scheme to achieve a balance between broker-dealers and investment advisers. In June 2007, we used the available administrative data to select a probability sample of investment advisers and broker-dealers for solicitation of business documents. Our selection process for the recipient firms followed a two-step procedure. First, we stratified based on whether the firm was registered as an investment adviser or as a broker-dealer. Note that the dually registered firms with individual advisory clients are listed in both databases. Second, we chose to oversample from among the more dominant firms in the market with respect to total accounts and account holdings, but we also sought to include a sufficient number of broker-dealers and investment advisers randomly sampled from the thousands of other firms of each type. See Appendix D for more detail on the sampling method used.

Recruiting participants. Appendix E includes a copy of the document-request letter and sample checklists. The principal investigator sent letters to all 164 firms via Federal Express to individual contact persons whose names FINRA provided (in the case of registered broker-dealers) or included in the IARD database (in the case of investment advisers). The principal investigator and RAND survey staff made more than 300 follow-up phone calls. Additional calls were also made to both solicit participation in the firm interviews, described later in this chapter, and to prompt nonrespondents to submit business documents. Multiple email messages were also sent to most firms to remind them about the study and notify them of forthcoming contact attempts. We also made a request to the associations that represent broker-dealers, investment advisers, and financial planners that they post a message on their Web sites about the study and encourage all members that receive a request from RAND to participate in the study.

In addition, a second Federal Express package was sent to 47 nonresponding firms and 27 firms that were classified as giving a "soft" refusal.[1] This follow-up package included prepaid Federal Express return packaging accompanied by a letter from the office of the SEC chair stressing the importance of participating in the study, as well as a new document-request letter from the study's principal investigator that included this supplemental statement: "We understand that not all firms will have all of the items on this list, but we would appreciate you sending us what materials you have, even if this is just a new client package."

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[1] We characterized a refusal as "soft" if the respondent refused but did not give a concrete reason for refusal and did not express adamant refusal.

Follow-up telephone discussions and messages also included scaled-back requests of this type. These contact attempts were discontinued 12 weeks after the first letters were sent.

Response rate. Despite our numerous attempts via multiple contact methods to recruit these firms to participate in this study, we received documents from only 29 sampled firms deemed eligible to participate in the study, and most of these submissions only partially complied with our requests. Initially, we received documents from 33 firms. However, four of these firms do not work directly with individual U.S. investors and were therefore not eligible for the study. The 29 eligible firms include 18 from the sample of investment advisers and 11 from the sample of broker-dealers. (Two firms were included in both samples.)

This limited participation greatly limits our ability to extrapolate findings from the submitted sample of documents. To supplement the documentary evidence, we conducted thorough reviews of the Web sites maintained by these 29 responding firms as well as another 34 sampled firms that both maintain a public Web site and were deemed eligible to participate in the study. Almost all of the remaining firms from the original list of 164 do not maintain public Web sites or were determined to be ineligible for the study because they do not work directly with individual investors or are no longer in business as registered in the fourth quarter of 2006. See Appendix D for more information on nonresponding or ineligible firms.

After excluding the total of 66 ineligible firms,[2] the mailed-document response rate is just 29 out of 98. However, when supplemented with Web-site data collected from another 34 firms, the effective response rate is 64 percent.

Types of documents received. The 29 eligible firms that complied with the request submitted documents varying in number, size, range of topics covered, and complexity. Data were recorded for the following topics: documents returned, company background, clients, services and products, disclosures, affiliations, online accounts, modes of access, fees and commissions, account and product specifications, employees, and marketing material.

A total of 158 sets of documents corresponding to the document categories we requested were received from the 29 eligible firms. Table D.1 in Appendix D breaks down the number of investment advisory and brokerage firms that submitted documents by document type. Multiple documents were included in most sets. Every document in every set was reviewed for data extraction and further analysis. Firms that offer more than one product and service could submit marketing and sales documents and account-based documents separately for each product or service. Large firms tended to make the most voluminous submissions. Smaller companies often submitted fewer than ten documents. For instance, one large firm made an electronic submission that included almost 100 separate brochures, 34 print advertisements, and 16 disclosure documents. Another large firm also submitted hundreds of electronic documents.

About half the firms submitted such documents as account-application forms and agreements, pricing schedules, disclosure statements, and examples of business cards for investment professionals. Broker-dealers in our sample were more likely to send marketing and sales documents.[3] Investment advisers were more likely to submit samples of account-based documents.

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[2] The final tally of ineligible firms consists of 57 firms that do not work with individual clients and nine firms that no longer exist.

[3] Most of the investment advisers we interviewed reported that they do not engage in advertising or other marketing activities.

Web data collection. As previously mentioned, we supplemented the mailed-document collection efforts by recording publicly available information from firm Web sites. Web-site data collection was attempted for 80 firms from the original sample, including the 33 firms that submitted documents and 47 firms that did not.[4] In total, Web sites were found for 73 firms, but 12 of these firms were deemed to be ineligible because they do not work with individual investors. Of the 33 firms that submitted documents, four firms do not work with individual investors, as previously stated, and two firms do not maintain a Web site, leaving us with 27 eligible firms with Web sites. Of the 47 firms that did not submit documents, five do not maintain Web sites and eight were ineligible for the study (seven firms do not work with individual investors and one firm no longer exists), leaving us with 34 eligible firms with Web sites. The 61 eligible firms with Web sites include 36 from the sample of investment advisers and 25 from the sample of broker-dealers. We reviewed approximately 1,000 pages on these Web sites and recorded data using a nearly identical protocol to that used for the business documents submitted by mail.

Table 5.1 depicts the source of the document collection for both investment advisers and broker-dealers. In sum, we have 63 firms with submitted documents or Web-site information. For two firms, we have mailed documents only, we have mailed documents and Web documents for 27 firms, and we have only Web documents for 34 firms.

Representativeness of the sample. Table 5.2 presents the breakdown of firms by size from which we collected data, either from submitted documents or from Web sites.

Our sampling scheme was designed to select a sample that is representative of the population of brokerage and investment advisory firms conditional on the stratification variables (broker-dealer or investment adviser, large or other). However, with such a small number of firms, partial compliance, and selective nonresponse, our results may be more reasonably viewed as illustrative rather than representative of the industry at large.

Table 5.1
Source of Documents Collected from Broker-Dealers and Investment Advisers

Firm Type	Mail Only	Mail + Web	Web Only	Total
Investment adviser	2	16	20	38
Broker-dealer	0	11	14	25
Total[a]	2	27	34	63

[a] Two firms are counted twice because they are dually registered and appear in both the samples of investment advisers and broker-dealers.

Table 5.2
Eligible Firms with Submitted or Web Document Data, by Size

Firm Type	Large Firms	Other Firms
Investment adviser	10	28
Broker-dealer	13	12

[4] That is, we searched for Web sites from (1) all of the firms that submitted documents and (2) almost all of the firms that did not submit documents and were not yet determined to be ineligible.

Methodology for Firm Interviews

The selection of firms to be interviewed followed from the sample selection for the analysis of business documents. The RAND research team invited a total of 106 firms that had not yet been deemed ineligible as of the end of July 2007 to participate in an interview. Another 13 potentially eligible firms were not invited to participate. These firms had previously been contacted as part of the business-document request, at which point they informed us they were not willing to participate in any component of this study.

The second Federal Express package that was sent to firms regarding the document request also informed firms that we were conducting interviews as part of the study. Thank-you emails were sent to firms that had already submitted documents, and these firms were informed about the interviews in these emails. Most selected firms then received follow-up phone calls in which they were asked to participate in an interview.[5]

At the end of this effort, seven brokerage firms and nine investment advisory firms agreed to participate in the interview process. The broker-dealers include six large firms, all dually registered, and one other firm that is solely registered. In contrast, only one of the participating investment advisers, a solely registered firm, came from the sample of large firms, and only one of the other participating investment advisers is dually registered. Of the remaining 90 firms, 19 refused to participate in an interview, 21 were found to be ineligible, and 50 did not respond to our interview request (including 21 firms that had already refused to send in documents).

Given the high nonresponse rate of firms from our original probability sample, we elected to allow for a volunteer sample to help fill in gaps in knowledge. We asked association groups that represent investment advisers, broker-dealers, and financial planners to post announcements on their Web sites regarding our study and ask for volunteers to participate in the interview process. We decided to allow for a similar number of volunteers representing both broker-dealers and investment advisers. The response from the investment advisers was overwhelming, with more than 130 individuals volunteering to participate. The response from broker-dealers was much more subdued, with only eight volunteers. We cut off our interviews with volunteer investment advisers after ten to more closely align with the number of volunteer broker-dealers. Adding the volunteer sample to the firms from the probability sample, in total, we conducted 34 interviews with financial professionals from brokerage and investment advisory firms. The interviews were conducted between August and October 2007.

Interview Approach

Interviews were aimed at gaining a better understanding of how investment advisers and broker-dealers work with individual investors today. Interviewees were asked specific questions about their firm: the types of services and products offered, number and titles of financial professionals in the firm, educational requirements of financial professionals, ongoing training requirements for financial professionals, supervisory and compliance functions, and forms of compensation. Interviewees were also asked how they market their products and services and what types of disclosures they provide to investors. We also asked their views on the current

[5] The 27 firms that were classified as soft refusals in the document-collection portion of the study were not called about the interviews. The letters that these firms were sent instructed them to call the principal investigator if they were interested in participating in an interview.

regulatory system (i.e., separate regulatory schemes for investment advisers and broker-dealers) and asked them to identify their key policy issues.

Results from Document Collection, Web Data Collection, and Firm Interviews

We combine the information we collected from the business-document data, including submitted documents and Web-site reviews, with information gleaned from the firm interviews to get a better understanding of the following four broad topics:

- How do firms interact with current and prospective clients, especially with respect to the provision of services and the presentation thereof?
- How do firms operate to provide these services, including interactions with other financial service providers?
- What do firms disclose to clients about these relationships and their services?
- What are firms' perspectives on current policy issues?

Given the nature of interviews, we were able to explore more topics during the interviews than we could abstract from written documents, such as thoughts on current policy issues. Therefore, for each of the subtopics, we will identify sources from which we draw the information.

We then compare findings from the volunteer broker-dealers to findings from brokerage firms from the probability sample. The majority of the participating broker-dealers from the probability sample were large firms. The volunteers added more insight into those operating as independently registered representatives usually working with smaller firms or in loose networks (independent broker-dealers). For the investment advisers, responses from the volunteer firms interviewed mirrored what we heard from our participants from the probability sample.

How Firms Interact with Clients

Clientele. To be eligible for the sample, each firm must serve individual clients. As reported in Table 5.3, from documents collected and Web sites, we are able to identify nine out of the 13 (70 percent) large brokerage firms as also working with trusts or estates, whereas only one out of 12 (8 percent) other broker-dealers was identified as doing so. The corresponding percentages were 92 percent and 33 percent for institutional investors and 92 percent and 25 percent for non-U.S. investors. Thus, the larger brokerage firms appear to work with a wider range of clients than do other broker-dealers.

Table 5.3
Clients of Investment Advisers and Broker-Dealers

	Broker-Dealers			Investment Advisers		
Clientele	All	Large	Other	All	Large	Other
Trusts and estates	10	9	1	22	6	16
Institutional investors	16	12	4	27	9	18
Non-U.S. investors	15	12	3	7	7	0
Total firms	25	13	12	38	10	28

The broker-dealers from the probability sample whom we interviewed ranged in firm size but primarily represented larger firms. Some firms had only a few hundred financial representatives, while others had many thousands. The number of accounts each of these firms held ranged from about 50,000 to several million.

Representatives from about half of the firms we interviewed had no specific account minimums and were willing to work with investors with small sums. These firms reflected a long-term view of their client relationship, noting that they wanted to grow with their clients as they advanced in their careers and earned more money in the future. These firms often promoted themselves as providing broad offerings so as to be useful at any life stage. The other broker-dealers we interviewed targeted the mass affluent (e.g., more than $100,000 in investable assets) or HNW individuals. The specific dollar amounts in the categories varied across firms. For example, some firms considered HNW individuals as those with more than $5 million in investable assets.

As reported in Table 5.3, documents collected and information from Web sites tend to indicate that investment advisers at large firms also work with a wider range of clients than do those at other advisory firms. Among those with any information on clientele, about two-thirds of large firms were identified as working with trusts or estates, and three-fifths of the other firms were found to work with trusts and estates. Most investment advisers with submitted documents also indicated that they work with institutional investors, including all nine large firms with available information on clientele and 18 of the other firms.

Another difference between large investment advisory firms and other investment advisory firms arises with respect to non-U.S. investors. The available information from business documents and Web sites specifically indicates that seven of the large investment advisory firms work with foreign investors, whereas this information is not found for any of the other investment advisory firms.

Services. We reviewed the available information from the Web sites and business documents to determine which firms provide any of a number of advisory services. The types of services include cash-flow planning and budgeting; asset management and evaluation services; and tax, college, retirement, and estate planning. The results are reported in Table 5.4.

Investment management and monitoring and investment-planning and retirement-planning services are provided by most, if not all, large firms from the sample of investment advisers, as well as most large firms from the sample of broker-dealers. The finding that the large brokerage firms provide many of these advisory services should not be surprising, because all of the large firms from the sample of broker-dealers are dually registered as investment advisers.

No more than one-third of the other broker-dealers were identified as performing any of these services except for the investment, portfolio, and asset management and monitoring. Seven of the 12 other broker-dealers were identified as providing services in this category. In fact, investment-management and -monitoring services are the most commonly provided service, across all categories: Eleven of 13 large brokerage firms and 35 of 38 investment advisory firms, including all ten large firms, were also identified as providing such services.

Most brokerage firms interviewed offered a range of investment products (e.g., stocks, bonds, mutual funds, individual retirement accounts, 529 plans [named for §529 of the Internal Revenue Code]), including proprietary products. One firm specifically noted that it has no incentives for selling proprietary products.

Table 5.4
Services Provided by Investment Advisers and Broker-Dealers

	Broker-Dealers			Investment Advisers		
Service	All	Large	Other	All	Large	Other
Cash-flow planning, budgeting, and budget-management planning	10	8	2	17	6	11
Investment, portfolio, and asset management and monitoring	18	11	7	35	10	25
Investment, portfolio, and asset evaluation, review, and planning	14	10	4	25	9	16
Tax-planning strategies	8	7	1	17	6	11
Education and college planning	12	8	4	15	5	10
Retirement planning	12	8	4	24	8	16
Estate planning	13	9	4	16	3	13
Insurance and risk evaluation, planning, and analysis	7	5	2	16	4	12
Total firms	25	13	12	38	10	28

Typical services offered by most advisory firms we interviewed include asset allocation, money management, financial planning, retirement planning, college planning, and estate planning. Some firms had specific strategies for investing the funds, such as convertible securities, large cap funds, and index funds. Most of the interviewed advisers said that they develop an investment strategy based on the client's profile and risk preference.

Web sites. Whereas the set of mailed documents we reviewed constitutes a selected and clearly limited sample of documents that could have been made available by the sampled firms, we believe that the Web-site documents we reviewed constitute the entire universe of Web documents available to prospective clients of these firms. In many cases, however, current clients have password-protected access to many additional documents.

We discovered very diverse Web-site functionality. Forty firms in the sample allow customers to monitor and manage accounts online. Seven firms provide clients with an option of opening an advisory or brokerage account online. Requirements for opening such an online account vary. The most frequently mentioned requirements included bank-account information, social-security number, and valid email address.

Web sites also significantly varied in the scope and amount of the information available. Many firms also offer their clients assistance tools and information on their Web sites. Table 5.5 presents our findings for the number of the Web sites that offer assistance tools and information.

As shown in Table 5.5, we found that two-thirds of the firms in the sample offer stock and mutual fund reports on their Web sites. About half of the firms offer historical analyses and educational materials. Our findings also indicate that, among the firms with publicly available Web sites, there are no sharp differences in the share of the broker-dealers and of investment advisers that provide assistance tools online.

Marketing to investors. The advertising campaigns of the larger brokerage firms whose representatives we interviewed focused on promoting the brand name rather than any specific product or service. These campaigns often promote experience managing money and long firm

Table 5.5
Firms That Provide Assistance Tools and Information Online

Tool	Broker-Dealers' Web Sites That Offer the Tool	Investment Advisers' Web Sites That Offer the Tool
Electronic investment assistance (online chat or help)	7	3
Historical analyses	10	12
Stock or mutual fund reports or articles	16	21
Educational materials	12	17
Total Web sites	25	36

history. Some firms also focus on their broad range of services. Those that do advertise use print media more than they use radio or television. The firms that focus on HNW individuals tend not to advertise. All firms reported that their primary source for new clients was referrals from existing clients or professional referrals (e.g., accountants, lawyers). Some participants noted that it is the discount brokerage firms that tend to have the large advertising campaigns.

Few of the small investment advisers we interviewed advertised. A couple of firms did market to other professional service providers, such as accountants, brokerage firms, and banks. All firms reported getting new clients almost exclusively through referrals from existing clients or other professional service providers. A couple of these firms had loose relationships with certain banks, which was also a source of new clients.

Many of the investment advisers we interviewed commented that the advertising campaigns by financial service firms create confusion and set false expectations. They said that many of those ads are for brokerage firms but that it sounds as if they are selling advice. Many of those ads portray a close relationship (e.g., attending family wedding, walking on the beach together) that almost no client will receive, which is a setup for disappointment for the client.

Investor knowledge. Most representatives of brokerage firms reported in interviews that investors do not understand the difference between broker-dealers and investment advisers, nor do they care. Investors want their financial service needs taken care of and are not concerned with exactly how that needs to happen (e.g., might need to open both advisory and brokerage accounts). Some noted that investors may be confused because many of the advertisements indicate that the firm can do everything, meeting any financial need. Many interviewees reported that, more generally, financial knowledge among the general investing public is quite low. Financial representatives end up providing general financial education to many clients.

Among the representatives of brokerage firms whom we interviewed, those who work primarily with HNW individuals reported more financial sophistication among their clients. In fact, they reported that open access to more financial information via the Internet has resulted in savvier investors who request more complex financial solutions.

Most representatives of investment advisory firms said in interviews that they did not think that investors knew the differences between broker-dealers and investment advisers. Some thought that, if they did know about the differences, this knowledge might affect their decisionmaking. Others thought that, as long as investors were getting service they like and returns they expect, they would not care about the differences.

Like broker-dealers, most of the investment advisers' representatives whom we interviewed observed that their clients' financial knowledge was generally low. However, a couple of interviewees reported having quite savvy clients. For the most part, educating the client on financial matters was viewed as being an important part of their job.

Fees and commissions. We also assessed the presentation of information on fees and commissions. We begin by discussing findings based on information provided in collected business documents, as reported in Table 5.6. We could identify that nine out of 25 brokerage and 12 out of 38 investment advisory firms provide fee tables in their mailed documents or on their Web sites (or both). We also found that large brokerage firms in our sample more frequently provided this information than did the large investment advisory firms. In contrast, none of the other broker-dealers provided fee tables in the business documents we obtained.

Our search for explanations of commissions in business documents produced similar qualitative results. We found that nine of the large brokerage firms and three of the large investment advisory firms explained the commission structure in business documents.

Next, we tried to obtain information on the structure of fees. We could not find this information for all firms. Based on the available information, we found that the firms in the sample of broker-dealers were almost equally likely to charge fees based on (1) the percentage of assets under management, (2) the number of transactions, and (3) a flat fee, as shown in Table 5.7. This surprising result on asset-based fees arises solely from the large brokerage firms, each of which is dually registered. Most of the investment advisory firms for which we could find information charged fees based on the percentage of assets under management.

To improve our understanding of the structure of the commissions and fees, we collected detailed information for each of the various brokerage and investment accounts and services described in the collected documents, as well as on the Web sites. Overall, we found information on 31 brokerage and 124 advisory accounts and services. We collected data on

Table 5.6
Availability of Information on Fees and Commissions

	Broker-Dealers			Investment Advisers		
Information Available	**All**	**Large**	**Other**	**All**	**Large**	**Other**
Fee table	9	9	0	12	4	8
Explanation of commissions	11	9	2	8	3	5
Total firms	25	13	12	38	10	28

Table 5.7
Compensation Structures

	Broker-Dealers			Investment Advisers		
Compensation Type	**All**	**Large**	**Other**	**All**	**Large**	**Other**
Percentage of assets under management	10	10	0	18	4	14
Transaction based	10	9	1	3	3	0
Flat fee	9	9	0	11	3	8
Total firms	25	13	12	38	10	28

many different fee and commission characteristics of these accounts and services, including minimum balances to maintain the account, transaction fees, flat fees, percentages of assets under management, hourly charges, minimum annual fees, existence of other charges, and variation in fees by asset type. For example, the minimum account size ranges up to $1 million for brokerage accounts and up to $10 million for advisory accounts. We found information about the minimum annual fee for half the brokerage accounts and 51 out of the 124 advisory accounts. Among those accounts and services with this fee information, the minimum annual fee ranged between $1,250 and $6,000 for brokerage accounts and between $500 and $5,000 for advisory accounts.

All the investment advisers we interviewed charged a percentage of assets under management for managing a client's portfolio. Representatives from about half of the investment advisory firms we interviewed reported account minimums of at least $1 million. Most of the others had account minimums of $100,000 to $500,000. Only one firm did not have an account minimum. A typical fee charged to investors started at 1.25 percent for $100,000 to $1 million assets under management; 1.00 percent for $1 million to $5 million; 0.75 percent for $5 million to $10 million; and 0.25 percent for more than $10 million.

Almost all of the advisory firms whose representatives we interviewed used outside custodians, such as Charles Schwab or Fidelity Investments, to house and trade the investments. It was typical for firms to use more than one custodian because they often had clients that came to them with accounts in a different custodian from the one that the firm typically used. Advisory-firm representatives said that the firms received no fees from these custodians—that clients pay custodians directly—but that the firms could negotiate certain rates for their clients because of their volume. The custodians send out monthly statements and updated prospectuses on products to clients. In these arrangements, the investment advisers also receive the monthly statements.

Two of the advisory firms whose representatives we interviewed also acted as subadvisers on wrap-fee accounts. Under these agreements, they work for the bank or brokerage firm offering the wrap-fee program and do not interact directly with the client. As compensation, they receive a percentage of the fees charged on those accounts.

How Firms Provide Services and Affiliate with Other Firms

Dual activity and affiliations. In Chapter Four, we described the various indicators of dual and affiliated activities available in the administrative data on all broker-dealers and investment advisers. For broker-dealers, we reported that about 10 percent are dually registered in our IARD database from the fourth quarter of 2006 and another 7 percent are state registered. In our sample, we found that 16 out of 25 of the broker-dealers are dually registered in this database and another firm is state registered. This high percentage of dually registered firms is largely attributable to the probability-sampling process. All 13 firms in our sample of large brokerage firms are dually registered in IARD. For investment advisers, on the other hand, only two of the ten large investment advisory firms in our sample are dually registered as broker-dealers in CRD, as are two of the other 28 investment advisers. Thus, just more than 10 percent of the investment advisory firms in the sample are dually registered. Recall that we found about 6 percent of all investment advisers in IARD to be dually registered as broker-dealers in CRD.

During our review of the submitted documents and Web sites, we found that 11 of the 16 dually registered firms from the sample of broker-dealers and two of four from the sample of

investment advisers are clearly identified as such. Of course, current clients must have access to much more information than we could review, and this dual activity may therefore be apparent to them. The same can surely be said of prospective clients with respect to most, if not all, of the firms in our sample.

Education and job titles. None of the broker-dealer representatives whom we interviewed reported specific educational requirements for their firms' financial representatives. While all firms stated that the overwhelming majority of their financial representatives had a college degree, it was not a job requirement; this allowed for hiring individuals with strong experience but no degree. Many of the firms required certifications, such as series 6 or series 7 securities licenses. Most of the firms reported that many of their financial representatives also carried advanced degrees in finance or business or certifications in accounting (e.g., CPA) or professional certifications (e.g., CFP).

Typical job titles used by employees in these large brokerage firms interviewed included financial advisor, financial consultant, financial representative, investment specialist, investment representative, and registered representative.

Some investment advisory firms whose representatives we interviewed required their financial professionals to hold at least four-year college degrees. A few firms did not require degrees, but almost all firms stated that their current professionals all had at least bachelor's degrees. Some firms required advanced degrees in business, finance, or accounting. Many professionals held additional certifications in financial planning (CFP) or as a CFA, or other securities licenses (e.g., series 65). A few firms hired only seasoned professionals with more than ten years of experience.

Typical job titles among those working in advisory firms interviewed included financial advisor, financial planner, financial analyst, investment adviser, wealth-management consultant, and portfolio manager.

We received samples of business cards from about half of the firms that sent in documents. Several of the large, dually registered broker-dealers submitted templates for business cards. Some templates listed both corporate titles (e.g., senior vice president, vice president, managing director) and such functional titles as financial consultant, registered financial associate, senior investment management specialist, financial advisor, and wealth advisory specialist. Other templates simply noted that both corporate title and functional titles would be listed. Two others noted that only high-level corporate titles would be listed; otherwise, the card would simply identify the business division. None of these templates mentioned certifications.

The other business-card submissions were made by smaller firms. One of these firms, the only broker-dealer among them, listed no titles or certifications. The investment advisory firms tended to list either corporate titles or no titles. The two exceptions each listed corporate titles and functional titles, such as portfolio manager, investment strategist, investment specialist, relationship manager, and client associate. The business cards submitted by three of these investment advisers listed certifications, such as CFA, CFP, ChFC, or personal financial specialist.

Employee compensation. From our interviews with firm representatives, we learned that compensation for individual employees (both broker-dealers and investment advisers) was more often salary plus bonus than it was pure commission. Bonuses are often based on the performance of the individual (i.e., amount of revenue generated), the performance of the individual's business unit, or firm performance.

Training. Most of those interviewed from larger brokerage firms described fairly extensive training programs. Many firms supported online training to make it as convenient as possible for the individual representatives to fit the training into their schedules. These firms reported offering continuous training on new products offered, compliance, ethics, or emerging issues in the industry. Some firms required that each representative perform a certain number of hours of training per year. This training was usually required in addition to continuing-education requirements for any licenses or certifications. Many firms expressed the need for their representatives to maintain a current base of knowledge to remain competitive and in compliance.

Given that the vast majority of the investment advisory firms whose representatives we interviewed were quite small, they did not have large in-house training programs like those we observed with the broker-dealers. It was common for these firms to provide in-house training on company policies and procedures and ethics, but most other training courses were taken from outside professional providers or through online services. Many of these firms did have yearly training requirements. One firm required 40 hours of continuing-education credits each year. Other firms strongly supported additional training, but they did not have specific requirements. Some of the smaller firms relied solely on the annual training requirements for individual certifications and licenses.

Compliance. Representatives of the larger brokerage firms whom we interviewed described a web of compliance functions starting with the individual broker, branch manager, and regional supervisors and working its way up to corporate headquarters. Technology is heavily involved in the compliance process. The sophisticated financial platforms that brokers use to conduct trades can monitor portfolios for conformance with established guidelines and clients' stated goals. A trade will get flagged if it seems misaligned. Audits are another avenue to assess the level of compliance. Branch managers conduct the oversight of daily compliance operations. Regional supervisors often oversee multiple branches for compliance. The main headquarters typically have compliance offices with dedicated compliance staff who serve as a resource to regional and branch staff and have ultimate reporting authority on firm compliance. Some of the larger firms whose representatives we interviewed have executive-level chief compliance officers with their own dedicated compliance staff.

Since most of the advisory firms whose representatives we interviewed were small in staff size, members often wore multiple hats. The firm's president or CEO was often the compliance officer as well. As such, they are responsible for reviewing trades, monitoring email traffic, logging activities, and assessing risk. Many noted that the compliance burden had increased over the past several years and that they spend more of their time on their compliance duties than they once did. They pointed out that this increased compliance burden is particularly tough on small firms.

What Firms Disclose About Their Services and Affiliations with Others

Disclosures. To better understand how firms provide disclosure information to their clients, we sought to differentiate types of disclosures that were submitted to us from those that were publicly available on the firms' Web sites. We used the following seven classifications: differences between investment advisers and broker-dealers, conflicts of interest, compensation structure, future performance, code of ethics or fiduciary oath, client duties or responsibilities, and client rights. Table E.1 in Appendix E reports the number of firms for which we identified each type of disclosure in each source of information. The possible sources were classified as one of the following: marketing brochure, product brochure, print advertisement, account

agreement, pricing schedule, separate disclosure document, or Web site. Table 5.8 aggregates these numbers across all information sources.

In the submitted business documents, across all broker-dealers, the most frequently identified disclosures concerned issues of compensation—e.g., how clients compensate the firm, how other firms compensate it, and how employees are compensated. We found 28 such disclosures. In contrast, the most frequently found disclosure on the Web sites of the broker-dealers was related to future performance. We identified 13 such Web-site disclosures, which typically were phrased as follows: "Past performance is not an indication of future results."

For the sample of investment advisers, the most frequently identified disclosure in the submitted business documents concerned a code of ethics or fiduciary oath. Note that these disclosures were also frequently found among the documents submitted by large brokerage firms—that is, dually registered broker-dealers. One code of ethics was stated as follows:

> This Code of Ethics is based on the fundamental principle that firm and its employees must put client interests first. This Code of Ethics and firm's written policies and procedures contain procedural requirements that employees must follow to meet legal and regulatory requirements.

As is the case with the Web sites of firms in the sample of broker-dealers, the most frequently identified disclosure on the investment advisers' Web sites is the one concerning future performance. Three types of disclosures are of particular interest to this study: differences between investment advisers and broker-dealers, conflicts of interest, and compensation structure. We begin with disclosures on differences between investment advisers and broker-dealers. The now-vacated 2005 rule (§202[a][11]-1) prescribed that "advertisements for, and contracts, agreements, applications and other forms governing, accounts for which the broker or dealer receives special compensation" must include a statement explaining that the account is a brokerage account rather than an advisory account. As is reported in Table E.1 in Appendix E, we most frequently found this type of disclosure in the account agreements of large firms from the sample of broker-dealers, each of which is dually registered as an investment adviser. We did not find any such disclosure in the submitted documents or Web sites of any of the other

Table 5.8
Disclosures Found Across All Sources of Information

	Broker-Dealers			Investment Advisers		
Type of Disclosure	**All**	**Large**	**Other**	**All**	**Large**	**Other**
Differences between investment advisers and broker-dealers	31	31	0	13	10	3
Conflicts of interest	32	31	1	19	10	9
Compensation structure	37	32	5	18	7	11
Code of ethics or fiduciary oath	30	30	0	29	15	14
Client duties and responsibilities	29	25	4	27	14	13
Client rights	25	23	2	21	16	5
Future performance	32	26	6	17	8	9

NOTE: Entries indicate total times found. See Appendix E for disaggregated totals.

broker-dealers. We also found it in the submitted documents or Web sites of two large investment advisory firms, one of which is dually registered, as well as one other investment advisory firm that is dually registered. Note that our document collection occurred during the period after the appellate-court ruling on March 31, 2007 (*Fin. Planning Ass'n v SEC*, 375 U.S. App. D.C. 389, 2007), but before the October 1, 2007, vacature of the rule. Therefore, we cannot identify whether lack of disclosure on the difference between a brokerage and an advisory account is due to the changing regulatory landscape or standard business practices.

Disclosures on conflicts of interest may include statements indicating, for example, (1) whether the investment adviser or broker-dealer receives compensation or reimbursement for referring clients to financial service providers, (2) that the investment adviser receives transaction-based compensation or fees related to the investment products recommended to his or her clients, or (3) that the firm's interests may not always coincide with the client's interests.

Once again, disclosure on conflicts of interest was most frequently found in the account agreements submitted by large firms from the sample of broker-dealers, but it was also found in product brochures submitted by six of these 13 firms. We also found this type of disclosure on the Web site of one of the other firms from the sample of broker-dealers, and this firm is a dually registered firm.

In the sample of investment advisers, conflict-of-interest disclosures were found on the Web sites of a large, dually registered firm and four other firms, none of which is dually registered. These disclosures were rarely found among the documents submitted by firms from the sample of investment advisers.

Finally, disclosures on compensation structure may also be related to differences between investment advisers and broker-dealers and conflicts of interest, and our findings are quite similar, especially for the broker-dealers. This type of disclosure was found more frequently than the other disclosures in the account agreements of investment advisers, but still it was only found in six of ten account agreements that investment advisers submitted.

Representatives of all brokerage firms whom we interviewed reported that they did a good job in providing disclosures and recounted the numerous avenues through which disclosures are provided to each client. The disclosures aim to identify the type of account and the level of responsibility of the firm. Several of the larger firms had specific documents that discussed the products and services offered and the roles and responsibilities of the investor and the firm. They made attempts to write these booklets in plain English rather than legal language. Additionally, the individual representatives are trained to discuss the risks associated with each product.

Several of the representatives interviewed acknowledged that, regardless of how carefully they craft documentation, investors rarely read these disclosures. They expressed frustration at providing the necessary documentation but still being held responsible in arbitration hearings when investors fail to read the disclosures. They felt that investors needed to accept some amount of responsibility for their decisions. One interviewee acknowledged that a client is going to sign something that a trusted adviser asks them to sign. Clients feel that the reason they engage a professional is so that they do not have to read all the accompanying literature. Therefore, for many investors, the fact that they were given disclosures was seen as meaningless.

Many of the dually registered firms offer a broad range of products and services for clients across the economic spectrum. Inherent in offering multiple services is the issue of conflicts of interest. These firms argued in the interviews that the existence of potential conflicts of interest

should not imply that such business models are unworkable. They acknowledged that conflicts should be clearly explained in disclosure statements that are customized for each service or product. They argued that offering a broad range of products and services is a result of client demand. Many investors prefer to purchase multiple services from one firm and receive one set of statements each month.

The standard set of disclosures that most of the interviewed investment advisers provided to new clients include Form ADV Part II, an account agreement that sets out the terms and conditions of the relationship, fee schedule, any conflicts of interest, and a privacy statement. Form ADV Part II is available to clients annually.

Firms' Perspectives on Policy Issues

Policy issues. Industry consolidation was a prominent theme of the interviews with broker-dealers and investment advisers. The large brokerage firms appear to be getting larger, with many financial service firms merging with banks. Some noted that consolidation is a by-product of the high cost of doing business in the industry and the need to gain economies of scale. Many cited that the regulatory-compliance burden has increased significantly over the past five years. Agencies with regulatory oversight of broker-dealers include SEC, NASD, NYSE, 50 states' attorneys general, the U.S. Department of Labor, the U.S. Department of Treasury, and insurance regulators. Each of these regulatory bodies has its own oversight and involvement as to how services are to be delivered to a single client. Participants in interviews said that these requirements can often be in conflict or even contradictory, which makes it very time-consuming (and labor-intensive) and difficult for financial service firms to resolve.

Other broker-dealers noted that the technological expense of the sophisticated financial platforms needed to trade and track trades was a hurdle for smaller firms. The cost of these platforms makes it difficult for small and medium-sized firms to stay on the cutting edge of technology. To stay competitive, they must gain greater economies of scale by merging with other firms.

Mergers are also occurring as brokerage firms attempt to offer a broader array of products and services to their clients. They no longer want to be viewed as brokers, but rather as wealth-management organizations. In addition to mergers with banks, some traditional broker-dealers have merged with various firms to be able to offer more comprehensive financial solutions to clients and to keep fees low. Examples of some of these broker-dealers' acquisitions or mergers mentioned in our interviews included combinations with advisory firms, firms with strong bond underwriting, and research firms.

Many dually registered firms that offer proprietary products stated that more work needs to be done regarding principal trades. They recognized that the SEC's Interim Rule 206(3)-3T (SEC, 2007b) adopted October 1, 2007, does provide limited relief from the principal trading restrictions of §206(3) of the Investment Advisers Act of 1940 (54 Stat. 847) for nondiscretionary advisory accounts, likely alternatives for fee-based brokerage accounts. However, they felt that this relief did not go far enough.

Most of the investment advisers interviewed felt that there should be a level playing field for those who provide financial advice, whether they are investment advisers or broker-dealers. Some thought that there should be stronger sanctions for wrongdoing. Given that this is an industry based on trust, a few bad apples can undermine an entire industry almost overnight. Adhering to the highest standards of integrity will maintain public trust and confidence in the financial service industry, but the burden of compliance should not outweigh its benefits.

Many noted that the additional compliance burden over the past five years has increased the costs of compliance to firms and therefore the costs to investors but has done little to add protection for investors. The compliance burden versus investor protection should be looked at more closely. Some interviewees noted that one cannot raise fees enough to cover these increased compliance costs and feared that smaller firms may sell to larger firms, thereby restricting consumer choice.

Some of the investment advisers interviewed expressed concern over access to advisory services. They noted that investment advisers are not currently serving many investors because these investors cannot meet the account minimums. They thought that the industry should give some thought to reaching these underserved populations that could greatly benefit from professional advice.

One investment adviser noted that, when a broker with a negative disciplinary background switches to a new brokerage firm, his or her errant history can be verified using CRD. However, that same broker could switch to being an investment adviser, and the former broker's background may not be detected. He suggested a unified database that could track individuals who jump back and forth between practicing as a registered representative and as an investment adviser.

Many advisory firms noted increased competition from banks and insurance companies in this area of investment advice. As another example of how this industry is evolving, some investment advisers noted that they no longer receive referrals from brokerage firms, which are now keeping those clients in house.

Thoughts on current regulatory structure. The regulatory structure governing broker-dealers and investment advisers is important because it affects how and what type of products and services are delivered to investors. Although every representative interviewed complained about the increasing compliance burden, all recognized the necessity to have a financial service industry that protects the investor from bad actors. Such protection is vital for ensuring public trust, and this is an industry that is based on trust. If investors lose trust in the industry, they will not invest, and there will be no industry. So not one person interviewed thought they could continue to operate without regulatory oversight. Most thought that oversight should be measured and streamlined, noting that, over the years, it has ballooned to unrealistic proportions.

Some interviewed argued that regulations on broker-dealers protect investors more than regulations on investment advisers do because of the sheer volume of rules they must follow, even though investment advisers are thought to have a higher legal standard of care (i.e., being a fiduciary).

Many of the firms interviewed thought the current two regulatory structures were outdated and do not address the realities of today's marketplace. Some felt that changes need to be made in the law that recognize three types of businesses—brokerage, advice, and planning—and that thought should be given to regulating planning. Regulatory distinctions should not be made on how the investor pays for the service but rather who makes the decision (investor or financial representative).

Some dually registered firms noted how burdensome it was to have the compliance team understand both regulatory schemes. Regulations for both investment advisers and broker-dealers can be very similar for some issues, but other issues will be completely different or even contradictory. It is both time-consuming and expensive trying to navigate two regulatory schemes. One representative from a large brokerage firm affiliated with a bank noted that the

firm was moving toward discretionary management under the bank rather than through the investment adviser because of the regulatory burdens. Some argued that, if there were just one standard of care, many of the regulatory burdens could be streamlined.

Most of the advisory firms whose representatives we interviewed thought that there was a need to differentiate how broker-dealers and investment advisers are regulated. They argued that, since broker-dealers are actually selling products, the manner in which they provide advice about those very products is important. However, some suggested that there could be some regulatory overlap between broker-dealers and investment advisers regarding issues such as advertising or disclosures.

Some firms expressed concern over the SEC's lack of specific guidance attached to new rules and regulations. It leaves much up to interpretation. One dual registrant expressed frustration that the SEC allows dually registered firms but gives little to no guidance on how dual registrants should follow new rules or regulations. The implementation of a new rule or regulation can have very different implications for a dually registered firm from those for a solely registered investment adviser.

Response to appellate-court ruling. Nine of the broker-dealers we interviewed reported that the appellate-court ruling (*Fin. Planning Ass'n v SEC*, 375 U.S. App. D.C. 389, 2007) regarding the 2005 rule (§202[1][11]-1) did not affect them because they had no (or few) fee-based accounts. Three of the full-service brokerage firms had converted their fee-based accounts (estimated to be on the order of hundreds of thousands of accounts) to either brokerage or advisory accounts. Those firms lamented losing the ability to offer fee-based accounts, because many clients preferred these types of products. They argued that offering fee-based products was driven by demands in the marketplace and that the court ruling will mean that clients will pay more but have access to less. They felt that the regulatory framework should provide a competitive environment in which firms can innovate to provide solutions for individual investors.

Most investment advisers agreed with the appellate-court ruling. Only one advisory firm, a dually registered firm, offered fee-based brokerage accounts to its clients. At the time of the interview, the firm had converted almost all of those accounts to advisory accounts. It reported that many clients were not happy about having to give up their fee-based accounts. The accounts of some clients who were uncomfortable with the idea of a discretionary account were converted to brokerage accounts.

Broker-Dealers from the Volunteer Sample

As previously mentioned, broker-dealers who volunteered for interviews were primarily from firms that were independently registered representatives affiliated with smaller firms or loose networks (independent broker-dealers). This differed from the group of interviewees from the probability sample, who almost exclusively represented larger brokerage firms that are dually registered. Those operating as independently registered representatives for smaller firms or loose networks appeared to function as independent operators and could set their own standards for certain criteria. For example, even if the representatives were associated with firms that did not have account minimums, they could choose to take only clients with a certain amount of investable assets or those who did not have other brokerage relationships. Many of these independent brokers were also licensed to sell insurance.

These independent brokers often do their own advertising, such as sponsoring a Little League® team or airing radio ads. These smaller firms tend to not have the extensive training

programs that the larger firms have. They rely primarily on the annual continuing-education requirements of any licenses (e.g., series 7) or any professional certifications (e.g., CFP). Some noted that mandatory training sessions tend to be very perfunctory.

Some of the smaller firms outsourced administrative functions, such as payroll or IT, as well as their compliance and training functions. Compliance for brokers affiliated with smaller firms or loose networks are usually required to generate daily reports from the unified computing system whereby the computer looks at the suitability of clients' investments. These reports are sent into the home office or the outsourced compliance supervisor to validate that the client's assets are invested correctly.

From the individual brokers' viewpoint, increased compliance measures means that they spend more time filling out paperwork but that how they interact with clients and what products they offer clients has not changed. An independent broker-dealer affiliated with a regional firm recounted a recent story of opening three accounts for a husband and wife. The compliance rules required him to fill out three forms, even though the information was exactly the same. Bigger firms have automated online forms that will populate all of the fields on the three sets of paperwork in about 15 minutes. It took him an hour and a half to fill out all the forms by hand. He noted that this is one of the reasons small firms are at a disadvantage to larger, national firms. Another individual broker at a small brokerage firm commented that the new account-agreement form used to be one page. It is now 22 pages long, and that does not even include disclosures or mutual fund expense forms.

None of the smaller broker-dealers or independent brokers had fee-based brokerage accounts; therefore, they were unaffected by the appellate-court ruling. Many of these firms were not in favor of the SEC and NASD promoting the use of fee-based accounts and felt that investors end up paying more fees in these accounts than they would in a traditional brokerage account. They felt that, if they were not making some adjustment to a client's account, they should not be able to charge for it. Many of them were traditional, commission-based brokers and felt that receiving a fee for not doing anything with the client's account just seemed wrong.

Illustrative Examples

We conclude this chapter with case studies that illustrate a range of business practices regarding dual activity and affiliations. In Chapter Four, our analysis of the administrative data reveals a number of apparent reporting problems, especially with respect to dual activity. It also documents the considerable heterogeneity of business practices across firms. A relatively small number of large firms provide a full range of services, are often affiliated with other financial service providers, and conduct an overwhelming proportion of the investment advisory and brokerage business. On the other end of the spectrum are the large number of relatively small firms that provide a limited range of either investment advisory or brokerage services but that frequently report affiliations with firms providing complementary services.

We present case studies to better illustrate the types of businesses in which these firms are engaged and the types of relationships they maintain with other firms. The administrative data that we obtained described these relationships in only a very limited way. Moreover, there appears to be some confusion about how these relationships should be reported in the regula-

tory filings. We attempt to paint a fuller picture by combining the administrative data with information taken from business documents, Web sites, and firm interviews.

These case studies highlight the blurring lines between investment advisers and broker-dealers. As researchers, we faced a substantial challenge when we attempted to classify firms based on reported activities and affiliations. We often needed to piece together the evidence using multiple sources of information, such as regulatory filings, business documents, Web sites, and firm interviews (see, for example, Appendix A). What became clear was that each registered firm may be involved in multifaceted relationships spanning a variety of business activities. These relationships appear to be not uncommon practices within the financial service industry. Therefore, it also seems clear that the typical retail investor faces a substantial challenge when attempting to understand the nature of the business from which he or she receives investment advisory or brokerage services. The case studies below provide examples of these business relationships.

Investment Advisers in the Registered-Representative Classification

We begin by discussing three investment advisory firms that we classified as registered-representative firms based on the IARD data. Two of these firms were included in our probability sample of investment advisers. The other firm volunteered to be included in firm interviews. All three firms are organized as corporations. Recall that, according to the Investment Adviser Association and National Regulatory Services (2006), only sole proprietorships should be eligible to report being engaged as a registered representative of a broker-dealer. Yet these reports were frequently given by investment advisory corporations with founders or other executives who are registered representatives of other firms. These three examples illustrate how this type of relationship may be portrayed to clients.

Case 1A. We begin with an investment advisory firm from the probability sample. On its Form ADV for the fourth quarter of 2006, it reported having one to five employees and around $50 million in assets under management in a total of about 300 customer accounts, all of which are discretionary. Most of the clients were individuals other than HNW individuals.

This firm reported on Form ADV that it was actively engaged in business as a registered representative of a broker-dealer. It also reported the existence of a related person that is a broker-dealer, municipal-securities dealer, or government-securities broker or dealer. A securities firm with a similar name is clearly identified in the business documents we received.

The profile page of the investment advisory firm's Web site clearly identifies the existence of a holding company for both firms. The close relationship between the two firms should be apparent to clients who receive the account agreement that the advisory firm submitted to us. Using the investment-management agreement, a client can open a brokerage account with the affiliated securities firm simply by checking a box in §4 of the agreement and signing Schedule B attached to the agreement.

Case 1B. We turn now to another investment advisory firm from the probability sample. On its Form ADV, it reported having six to ten employees and around $150 million in assets under management in a total of about 300 customer accounts, a fraction of which are non-discretionary. Most of the clients were HNW individuals, but some other individuals were clients as well. As in the first case, this investment advisory firm reported being engaged in business as a registered representative of a broker-dealer; however, it did not report the existence of a related person that is a broker-dealer, municipal-securities dealer, or government-securities broker or dealer.

This investment adviser submitted to us a six-page investment-management agreement. An item at the bottom of the first page notes that a securities firm with a dissimilar name may execute transactions through its clearing broker. The president and CEO of the advisory firm is a registered representative of the former broker-dealer.

The investment advisory firm's Web site does not make any such relationships clear, but it does include a statement on the core principles page indicating that the firm has "no incentive to increase transaction costs." We independently identified the related brokerage firm by conducting a broker search through FINRA, using the name of the individual who founded the advisory firm, now its president and CEO. The advisory firm's Web site description of this individual notes that he previously worked at several different brokerage firms, but it does not mention his current firm.

Case 1C. We now consider an investment advisory firm that volunteered for interviews. As in the previous case, this corporation reported on Form ADV being engaged in business as a registered representative of a broker-dealer, and it did not report the existence of a related person that is a broker-dealer, municipal-securities dealer, or government-securities broker or dealer. It reported having 11 to 50 employees, including six to ten employees who are registered representatives of a broker-dealer. It reported having more than $150 million in assets under management, all in nondiscretionary accounts. Most of the clients were individuals other than HNW individuals.

According to our records, this firm was identified as a broker-dealer when volunteering for the interview. During the course of the interview with a founding member of the firm, it became apparent that the firm is an investment advisory firm with individual professionals who all have securities licenses (series 6 or 7).

The firm's Web site describes six individual professionals on its management team, including the interviewee. Two of these individuals are described as "registered representative of and offers securities through" a large broker-dealer. One of these two individuals, in addition to one other member of the management team, is also described as a "registered representative of" the investment advisory firm. The description of the interviewee, who reported having a series 6 license, does not indicate any activity as a broker, which is consistent with his own comments.

Broker-Dealers in the Affiliated-Activity Classification

We now discuss two broker-dealers that we classified as affiliated-activity firms based on the CRD data. Both firms were included in our probability sample of broker-dealers. These two brokerage firms did not submit any documents and maintain no Web sites, but some information is available via the Web sites of affiliated investment advisers.

Case 2A. The first broker-dealer reported less than $50,000 in total assets on its FOCUS Part IIA report for the fourth quarter of 2006. On Form BD, this firm reported that it was not engaged in the investment advisory service business, but it did report the existence of an affiliated firm in the securities or investment advisory business. The broker-dealer did not submit any business documents, and it does not maintain a Web site. We identified the firm with which it is affiliated based on a Web search that found a Form ADV linked to the terms-of-use page on the advisory firm's Web site.

On this posted Form ADV, the advisory firm reports on its broker-dealer affiliate, but not elsewhere on the Web site. The report includes text noting that principals of the advisory firm are registered representatives of the broker-dealer, which was founded by the founder of the

advisory firm. The Web site description of this individual, however, does not note his role with the broker-dealer. The Form ADV also notes that the advisory firm has entered into an agreement with the broker-dealer to pay all the broker-dealer's overhead expenses. "At its discretion," the broker-dealer may repay the advisory firm for these disbursements.

Case 2B. Finally, we consider another broker-dealer that reported less than $50,000 in total assets on its FOCUS Part IIA report. As in the previous case, this firm reported on Form BD that it was not engaged in the investment advisory service business, but it did report the existence of an affiliated firm in the securities or investment advisory business. The broker-dealer also did not submit any business documents, and it does not maintain a Web site. We identified the firm with which it is affiliated based on a Web search that found the affiliate's Web site. This affiliated investment adviser has a similar name.

The homepage of the advisory firm's Web site notes that securities are offered through the brokerage firm. The remainder of the Web site describes the range of services that the advisory firm offers. It provides links to pages describing each of six financial-planning services and four other professional services. The link to information about brokerage services is listed second in the latter group, between litigation support and accounting services.

The page about brokerage services includes the following text that describes the benefit to clients of operating a wholly owned brokerage firm: "[W]e are completely free to select the products and services that we recommend to our clients." This page also notes that this business relationship provides "our clients with the added convenience of one-stop shopping within their current personal financial relationship."

Conclusions

This analysis of business documents and firm interviews was designed to obtain a more in-depth understanding of investment advisers' and broker-dealers' business practices than is possible based solely on administrative data. Taken together, these complementary, empirical findings portray an industry composed of heterogeneous firms engaged in a variety of relationships with their clients and with other firms.

The usefulness of the business-document analysis is limited by the low response rate among selected firms and partial compliance rate among responding firms. Even with full cooperation, this type of analysis cannot mimic the experience of individual investors seeking to understand the business practices of investment advisers and broker-dealers seeking to provide services to them. Still, the submitted documents and documents available on the Web present illuminating examples of the range of products and services offered by these firms, the variety of relationships among these firms, and the manner in which these alternative offerings and relationships are presented to prospective clients. If prospective clients were exposed to the documents we received and the Web sites we reviewed, they would likely obtain a very uneven understanding about these firms. In some cases, they would face a flood of information, only some of which could possibly be processed. In other cases, they receive only a trickle of information. In any case, they would likely be left to turn to individual professionals to summarize the key aspects of the prospective relationship.

The firm interviews provided supplemental information on these and other topics. Perhaps of most use are the investment advisers' and broker-dealers' perceptions of the level of investor knowledge in general and investor understanding of the differences between invest-

ment advisers and broker-dealers in particular. The concerns they typically express about regulatory burdens are frequently weighed against the recognized need to protect unsophisticated investors.

Finally, the importance of the relationship between the investor and the individual professional was frequently discussed in the firm interviews. This relationship was said to typically be initiated based on a referral. Firm-interview participants described the industry as one based on trust. It is this relationship that we seek to understand in the next chapter discussing survey interviews and focus-group discussions with current and potential investors.

CHAPTER SIX

Investors' Level of Understanding

The preceding chapters have focused on addressing our first research question by examining current business practices of investment advisers and broker-dealers. We now turn to the second research question of what investors understand about a range of issues, including whether investors understand distinctions between broker-dealers and investment advisers. We also seek to learn about their experiences interacting with the financial service industry and their expectations of service provided by individual professionals and firms in the financial service industry. We used two main avenues to make queries of investors. We administered a large-scale, national household survey, and we conducted six intensive focus-group discussions. The focus groups complement the national survey by providing a deeper understanding of how investors interact with the financial service industry and what they do and do not understand about the nature of that relationship. Participants in both the survey and the focus groups represent a range of ages, income levels, and racial and ethnic groups. In general, responses by survey and focus-group participants tended to be quite similar.

Our results show that most survey respondents and focus-group participants do not have a clear understanding of the boundaries between investment advisers and broker-dealers. Even those who have employed financial professionals for years are often confused about job titles, types of firms with which they are associated, and the payments they make for their services. Respondents and participants also understand relatively little about the legal distinctions between investment advisers and broker-dealers. Despite this confusion, however, respondents reported that they are largely satisfied with the services they currently receive from financial professionals.

We begin with discussion of results from our household survey, and we then turn our attention to the focus-group discussions. The household survey addresses several major topics, including (1) beliefs about the differences between investment advisers and broker-dealers and (2) experience with different types of financial service providers. In the latter part of this chapter, the focus-group results amplify the results from the household survey.

Household Survey

We collected data from U.S. households via an Internet survey of investment behavior and preferences, experience with financial service providers, and perceptions of the different types of financial service providers. The survey was administered to members of the ALP, a probability sample of more than 1,000 individuals aged 18 and over, who either used their own computers or a WebTV® appliance provided by RAND to participate in the panel over the

Internet. These individuals were recruited to the ALP after participating in the monthly survey of consumers conducted by the University of Michigan's Survey Research Center (SRC). (For more detail about the ALP and the Michigan monthly survey, see Appendix F.)

The household survey was administered for six weeks, from September 26, 2007, through November 6, 2007, and, because it was conducted online, we had quick access to the results. During this time, 654 households completed the survey. Respondent age varies from 19 to 89, with an average age of 52. Eleven percent of the sample has a household income of less than $25,000; 22 percent of the sample has one greater than $25,000 but less than $50,000; 23 percent of the sample has one greater than $50,000 but less than $75,000; and 45 percent of the sample has one greater than $75,000. More than 98 percent of respondents have a high-school degree or GED. Almost 52 percent of respondents have a bachelor's degree. Forty-nine states (all except Alaska) are represented in our sample. Using the U.S. Census Bureau geographic regions, almost 22 percent of households live in the West region, almost 23 percent live in the Midwest region, 18 percent live in the Northeast region, and 37 percent live in the South region. More than half of the households who live in the South region are in the South Atlantic division of the South region. This division includes Delaware, Maryland, Virginia, the District of Columbia, West Virginia, North Carolina, South Carolina, Georgia, and Florida.

Because our participants were drawn from the ALP, they tend to have more education and income than the broader U.S. population.[1] For this reason, our results will likely overstate the levels of financial knowledge, experience, and literacy of the U.S. population at large.

The survey began with an assessment of investment experience. We then asked several questions on respondent beliefs regarding the differences between investment advisers and broker-dealers. Next, for respondents who currently use a financial service provider, we asked detailed questions about their interactions with their providers. Respondents who do not use a financial service provider were asked for the reasons that they do not use a financial service provider. The last section of the survey presented respondents with definitions of a broker and an investment adviser, including a description of common job titles, legal duties, and typical compensation. Respondents were then asked to report the likelihood of their seeking services (in general) from a broker or investment adviser, the likelihood of seeking investment advice (in particular) from a broker or investment adviser, and the degree to which they would trust investment advice from a broker or an investment adviser.

Investment Experience

Participants were determined to be "experienced" investors if they held investments outside of retirement accounts, had formal training in finance or investing, or held investments only in retirement accounts but answered positively to questions gauging their financial understanding, such as the nature and causes of increases in their investments, seeking out information about their investments when necessary, and knowing the different investment options available to them. Participants who did not meet these requirements were deemed "inexperienced" investors. We used an identical classification method to determine participation in the focus groups.

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[1] According to the March 2007 Current Population Survey, 85 percent of Americans aged 18 and older have at least a high-school diploma or GED, and 26 percent have at least a bachelor's degree. The distribution for U.S. household income is 22 percent with less than $25,000; 27 percent greater than $25,000 but less than $50,000; 20 percent between $50,000 and $75,000; and 31 percent greater than $75,000. See U.S. Census Bureau (2007).

In the ALP sample, about two-thirds of survey respondents are categorized as experienced investors and one-third are categorized as inexperienced investors.

Beliefs About the Differences Between Investment Advisers and Brokers

To elicit their beliefs regarding the differences between investment advisers and brokers, we presented respondents with a series of specific services and obligations and asked them to indicate which items applied to any of the following financial service professionals: (1) investment advisers, (2) brokers, (3) financial advisors or financial consultants, (4) financial planners, or (5) none of the above.[2]

Respondents tended to perceive differences between investment advisers and brokers in terms of services provided and duties and obligations. Table 6.1 summarizes the survey results. Comparing beliefs on services provided by investment advisers to services provided by brokers, respondents were more likely to say that investment advisers provide advice about securities, recommend specific investments, and provide planning services. Respondents were more likely to say that brokers rather than investment advisers execute stock transactions and earn commissions. Respondents were slightly more likely to report that investment advisers rather than

Table 6.1
Respondents' Beliefs About Financial Service Professionals

What types of financial service professionals: (Check all that apply)	Investment Advisers (%)	Brokers (%)	Financial Advisors or Financial Consultants (%)	Financial Planners (%)	None of These (%)
Provide advice about securities (e.g., shares of stocks or mutual funds) as part of their regular business	80	63	78	63	3
Execute stock or mutual fund transactions on the client's behalf	29	89	28	23	3
Recommend specific investments	83	51	72	50	2
Provide retirement planning	51	12	80	91	2
Provide general financial planning	42	13	80	88	1
Typically receive commissions on purchases or trades that the client makes	43	96	34	22	1
Are typically paid based on the amount of assets that the client holds	49	40	50	34	12
Are required by law to act in the client's best interest	49	42	59	55	19
Are required by law to disclose any conflicts of interest	62	58	57	51	18

SOURCE: ALP survey, 651 respondents.

[2] Between subjects, we randomly varied the order of *broker* and *investment adviser* as they appeared on the computer screen.

brokers are required to act in the client's best interest and disclose any conflicts of interest. Even though these differences are small in magnitude, they are statistically significant.

Respondents tended to believe that financial advisors and consultants are more similar to investment advisers than to brokers in terms of the services provided, compensation methods, and duties. However, as noted in Chapter Five, *financial advisor* and *financial consultant* are titles commonly used by investment adviser employees as well as broker-dealer employees. Furthermore, we present evidence below that the most common titles of financial service providers that these respondents employ are generic terms, such as *advisor* or *financial advisor*.

We replicated the analysis, summarized in Table 6.1, conditioning on age, education, income, geographic region, investment experience, and whether the respondent later reported using a financial service provider. Results are presented in Table G.1 in Appendix G. For each category, the conclusions are qualitatively similar to those drawn from the entire sample.

Characteristics of Respondents Who Use Financial Service Providers

Of those surveyed, 47 percent of respondents reported that they currently use a financial service provider for "conducting stock market and/or mutual fund transactions" and/or "advising, management, and/or planning."[3] These respondents were more likely than other respondents to be older than 40, have at least a college degree, have household income of at least $75,000, and be an experienced investor (see Table 6.2).

Of the 306 respondents who reported using a financial service provider, 73 percent reported receiving professional assistance for advising, management, or planning, and 75 percent reported receiving professional assistance for conducting stock market or mutual fund transactions. Initially, more than 48 percent of respondents reported using professional assistance for both types of services. In discussing the services they receive, respondents were given another opportunity to report whether their financial service professional provides both types of services. In response to that follow-up question, we found that more than 70 percent of the reported financial service professionals provide both types of services.

Of respondents who say that they have a financial service provider, we asked whether there is a specific person or a firm that provides these financial services. Almost 81 percent of respondents personally interact with an individual professional. Of those respondents, 31 percent personally interact with more than one individual professional. Just over one-third (35 percent) reported employing at least one firm at which they do not interact regularly with a specific person.

To better assess whether respondents have different experiences depending on whether or not they interact with a specific individual or a firm, we distinguish between these experiences when presenting the survey results.

Job Titles and Firm Types of Financial Service Providers

Respondents who reported that they use a specific person, or an individual professional, were then asked for that person's title (or brief job description). Respondents gave 449 titles for 323

[3] When we posed the question, "Do you currently use any professional service providers for (1) conducting stock market or mutual fund transactions or (2) advising, management, or planning?" we randomly varied the order of the services between subjects as the question appeared on the computer screen.

Table 6.2
Respondents Who Use Financial Professionals, by Respondent Characteristics

Respondent	Responding Yes (%)
All respondents	47.3
Age	
40 and older	50.3
Under 40	33.9
Education	
College degree or more	55.4
No college degree	38.8
Household income	
At least $75,000	55.0
Less than $75,000	40.7
Region	
West	48.2
Midwest	42.9
Northeast	48.7
South	49.2
Investment experience	
Experienced	59.4
Inexperienced	23.4

SOURCE: ALP survey, 647 respondents.

NOTE: Question was worded as follows: Do you currently use any professional service providers for (1) conducting stock market or mutual fund transactions or (2) advising, management, or planning?

individual professionals.[4] The vast majority (248) of these individual professionals reportedly provide both advisory and brokerage services. Respondents reported that 45 of these individual professionals provide brokerage services but not advisory services, and 34 provide advisory services but not brokerage services. Respondents reported a wide variety of titles that their financial service providers use. The most commonly listed titles and their functions are reported in Table 6.3.

The most commonly reported title is *financial adviser* or *financial advisor*, regardless of the type of service provided by the individual professional. In fact, if these titles are combined with *financial consultant* and *advisor*, they account for almost one-quarter of all listed titles. *Financial planners* were listed 44 times, and CFPs were listed 21 times. *Broker*, *stockbroker*, or *registered representative* was used 38 times, and *investment adviser* or *investment advisor* was used 22 times.

[4] Some respondents provided more than one title for an individual professional. For example, "financial planer *[sic]*, stockbroker, insureance *[sic]* agent."

Table 6.3
Professional Titles Most Commonly Reported by Respondents

Title	All Individual Professionals	Provide Advisory Services Only	Provide Brokerage Services Only	Provide Both Types of Services
Advisor	11	1	1	9
Banker	21	2	8	11
Broker, stockbroker, or registered representative	38	0	8	30
CFP	21	3	3	15
Financial adviser or financial advisor	78	7	11	60
Financial consultant	25	2	0	23
Financial planner	44	6	1	37
Investment adviser or investment advisor	22	3	3	16
President or vice president	20	0	2	18

SOURCE: ALP survey.

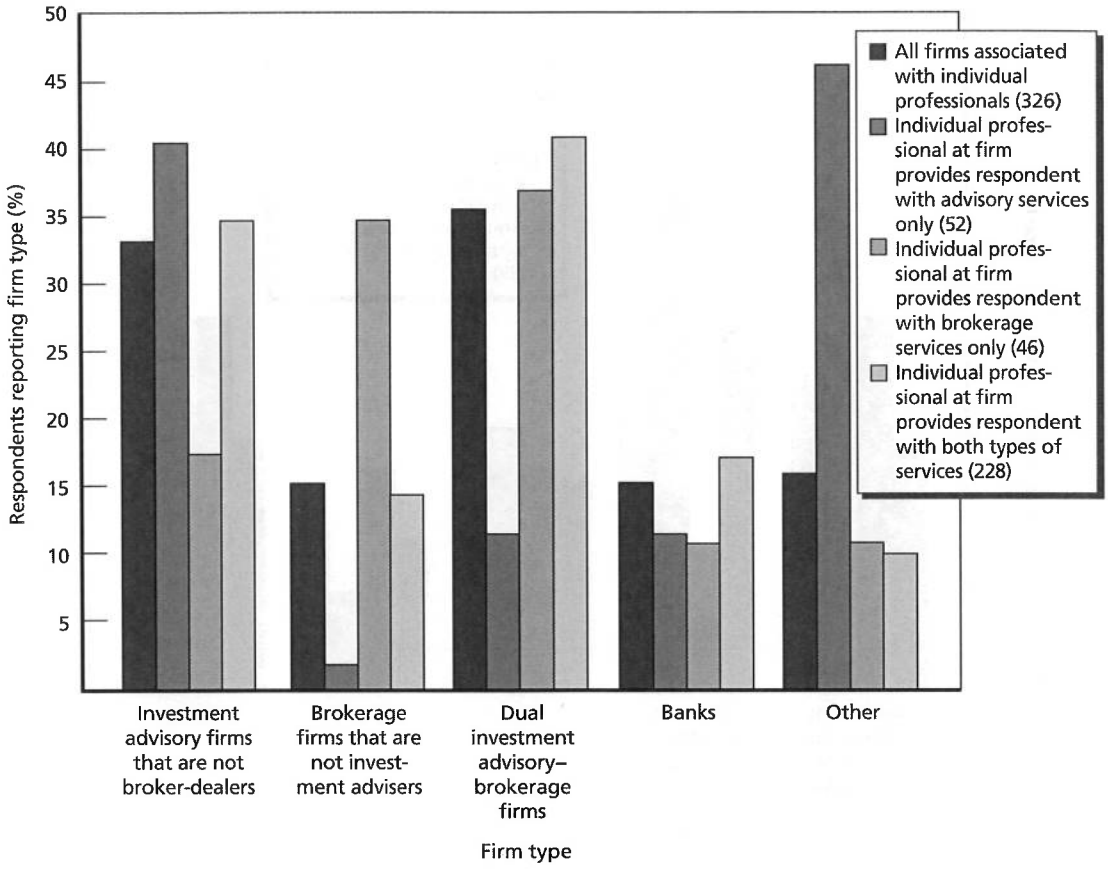
NOTE: Four hundred forty-nine titles were reported. Entries indicate the number of times that the title was reported.

For any given title, the individual professional is most likely to be reported as offering both types of services. Titles for individual professionals who provide only advisory services or only brokerage services suggest some confusion on respondents' part, although these numbers are small. For example, of the 22 individual professionals with a reported title of *investment adviser* or *investment advisor*, respondents reported that three provide brokerage services only. Furthermore, recall that responses to the questions on beliefs about financial service providers indicated that respondents view financial advisors or financial consultants as being more similar to investment advisers than to brokers. However, when asked about job titles and service provided, responses indicate that financial advisors are more likely to provide brokerage services only than to provide advisory services only. Lastly, note that 26 responses were left blank or explicitly stated that the respondent did not know the individual professional's job title or job description.

Respondents who work with at least one individual professional were asked to report what kinds of firms employ the individual professionals who provides financial services to them. Respondents who do not interact with a specific person were asked to report what kinds of firms they use for financial services. Respondents were asked to check all that apply: investment advisory firm, brokerage firm, bank, or other. The order of the first two categories was randomized between subjects.

For firms that are associated with an individual professional, the most common response to the type-of-firm question is for the first two categories to be checked—that is, both investment advisory firm and brokerage firm (see Figure 6.1). We refer to these firms as *dual investment advisory–brokerage firms*. The second most common response is for the category of investment adviser to be checked but not the brokerage category to be checked. We refer to these

Figure 6.1
Types of Firms That Employ Individual Professionals



SOURCE: ALP survey.
RAND *TR556-6.1*

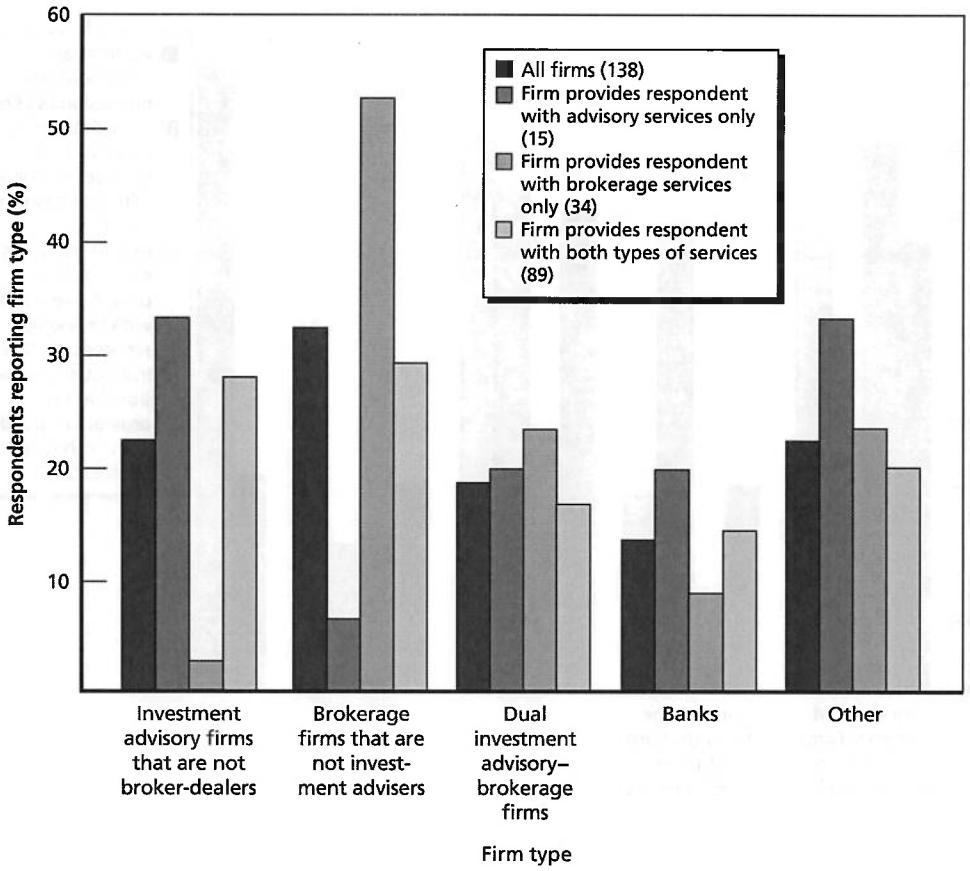
firms as *investment advisory firms that are not broker-dealers*. There were 52 other firm categories checked, and respondents specified 37 of them. The most commonly mentioned other type of firm was insurance firm (ten), and the second most commonly mentioned type of firm was accounting firm (seven).

For firms not associated with an individual professional, the most common response to the type-of-firm question is for the brokerage category to be checked but not the category for investment advisers to be checked. We refer to these firms as *brokerage firms that are not investment advisers*. The second most common is investment advisory firms that are not broker-dealers (see Figure 6.2).

Experiences with Financial Service Providers

We asked respondents detailed follow-up questions on the first individual professional or the first reported firm that is not associated with an individual professional. The frequency distributions for these first individual professionals are similar to those for all individual professionals reported. Likewise, for the first firm reported, the frequency distribution of firm types is

Figure 6.2
Types of Firms Used That Are Not Associated with Individual Professionals



SOURCE: ALP survey.
RAND *TR556-6.2*

similar to those for all firms reported. For further details on the frequency distributions, see Appendix G.

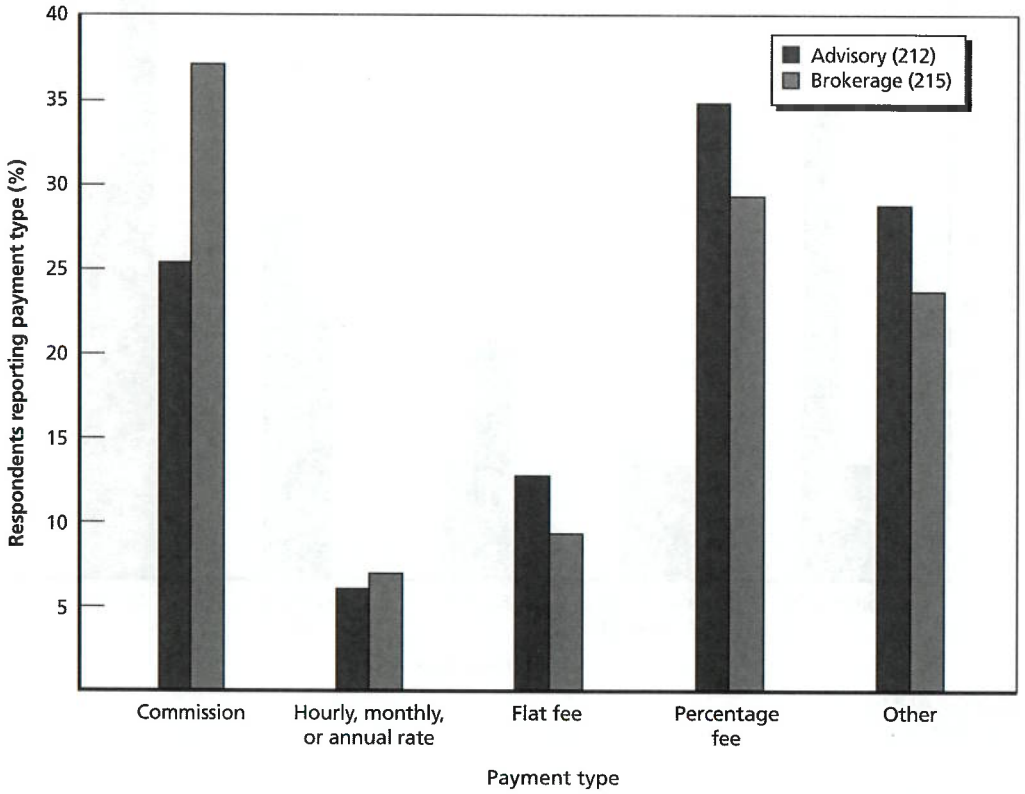
We received detailed responses on 246 individual professionals and 85 firms. When comparing the professionals and firms about which respondents gave us detailed information, we found that the firms are less likely to provide both advisory and brokerage services, according to our respondents. Of the 246 individual professionals about whom respondents gave us detailed information, 12 percent provide advisory services only, 11 percent provide brokerage services only, and 76 percent provide both types of services. Of the 85 firms about which respondents give us detailed information, 18 percent provide advisory services only, 29 percent provide brokerage services only, and 53 percent provide both types of services.

Methods of payment for financial services. We asked respondents what methods of payment they make for advisory or brokerage services: commission, rate (hourly, monthly, or annual), flat fee, a fee determined by a percentage of assets, or other. Figure 6.3 presents the results. The most commonly reported compensation method to individual professionals for brokerage services is commission (37 percent), and the most commonly reported compensation method for advisory services is a fee determined by percentage of assets (35 percent). When

asked to estimate their annual expenditure for the different types of services, the answers from respondents whose individual professional provides advisory services range from $0 to $30,000, with an average of $1,374. Answers from respondents whose individual professional provides brokerage services range from $0 to $21,500, with an average of $1,131. However, the median annual expenditure on advisory services from individual professionals is $125, and the median annual expenditure on brokerage services from individual professionals is $200. The large difference between average and median expenditure indicates that a small proportion of respondents reported paying a large amount for these services. Indeed, 10 percent of the responses on annual expenditure for advisory services from an individual professional are greater than or equal to $3,000. Likewise, 10 percent of the responses on annual expenditure for brokerage services are at least $2,400.

Responses to the questions on methods of payment suggest that many respondents are confused about the methods of payment or the type of firm with which their individual professional is associated. For example, 84 respondents indicated that they receive advisory services (either alone or in conjunction with brokerage services) from an investment advisory firm that is not also a brokerage firm. Of these respondents, 19 percent reported that they pay for these advisory services based on a percentage fee, and 22 percent indicated that they pay commission for advisory services. However, recall from Chapter Four that 97 percent of SEC-registered

Figure 6.3
Methods of Payment to Individual Professionals for Financial Services



SOURCE: ALP survey.
RAND *TR556-6.3*

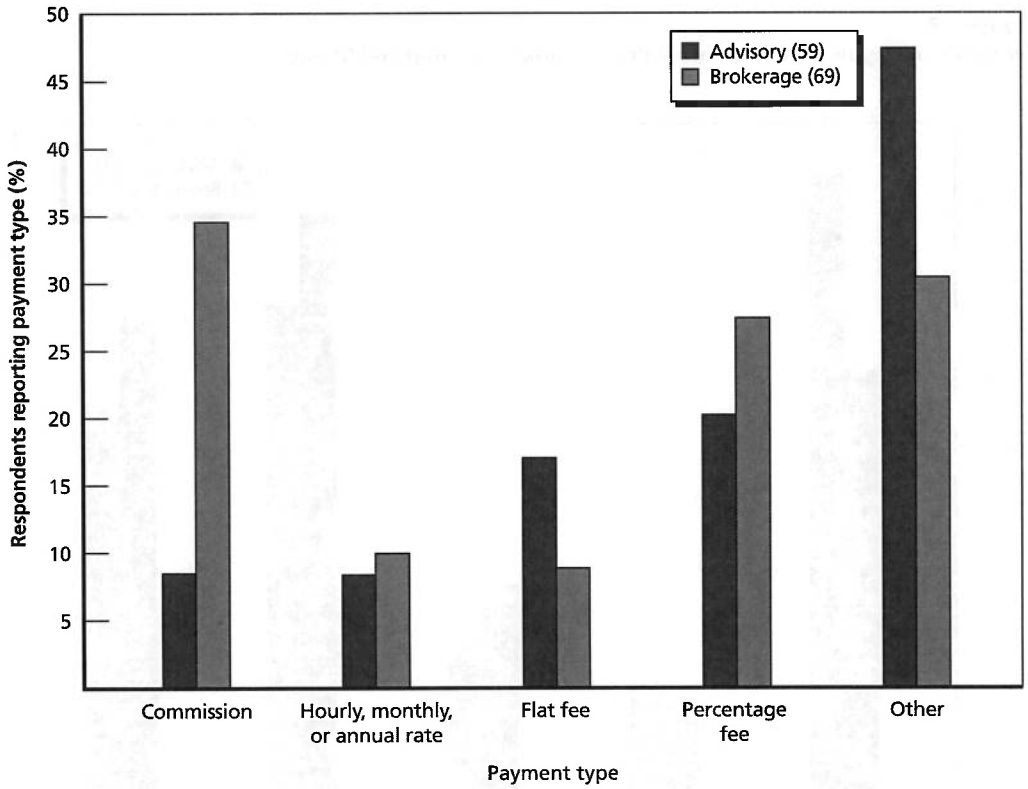
investment advisers that are not registered broker-dealers reported that they are compensated by asset-based fees, and only 10 percent reported that they receive commissions.[5]

Finally, 14 respondents did not answer the estimated annual expenditure question for advisory services, and 41 reported that they pay $0. For brokerage services, 18 respondents did not answer the estimated annual expenditure question, and 34 reported that they pay $0.

For firms, as opposed to individual professionals, respondents reported the most common form of compensation for brokerage services was commission and, for advisory services, was other (see Figure 6.4). Of the 28 other responses, 16 had further explanations. The most common explanations for the other responses were that the respondent does not pay for the service (six responses) or does not know what he or she pays for the service (four responses).

When asked to estimate their annual expenditures for the different types of services provided by firms rather than directly from individual professionals, the answers from respondents with firms providing advisory services ranged from $0 to $5,700, with an average of $278. The answers from respondents with firms providing brokerage services ranged from $0 to $8,000, with an average of $476. For advisory services, eight respondents did not answer

Figure 6.4
Methods of Payment to Firms for Professional Services



SOURCE: ALP survey.
RAND *TR556-6.4*

[5] An alternative explanation for this inconsistency could be if the firms that our respondents use are state-registered rather than SEC-registered firms, and state-registered firms are less likely than SEC-registered firms to charge asset-based fees.

the estimated annual expenditure question, and 21 reported that they pay $0. For brokerage services, five respondents did not answer the estimated annual expenditure question, and 14 reported that they pay $0.

How respondents located their financial service provider. Regardless of the types of services received, the most common way in which respondents found their current individual professional is by referral from a friend or family. The second most common way is by professional referral (see Table 6.4).

When asked about how respondents found the current firm that they employ for financial services, the most common response was other. Of the 32 other responses, there were 19 explanations. The most frequently mentioned explanation (six responses) was that the respondent found the firm through their place of work. The second most common method was by referral from a friend or family (see Table 6.5).

Length of relationship and satisfaction with financial service provider. In general, respondents reported that they have been working with the current individual professional for several years. When respondents were asked how long they have been working with their

Table 6.4
Methods of Locating Individual Professionals

Method	All Responses (239) (%)	Advisory Service Only (30) (%)	Brokerage Service Only (29) (%)	Both Types of Services (180) (%)
Professional referral	30.5	23.3	13.8	34.4
Referral from friend or family	45.6	43.3	34.5	47.8
Mailing	3.3	6.7	0.0	3.3
Print ad	3.8	0.0	6.9	3.9
Television ad	0.8	0.0	3.4	0.6
Internet	1.3	0.0	6.9	0.6

SOURCE: ALP survey.

Table 6.5
Methods of Locating Financial Service Firms

Method	All Responses (83) (%)	Advisory Service Only (14) (%)	Brokerage Service Only (25) (%)	Both Types of Services (44) (%)
Professional referral	18.1	14.3	12.0	22.7
Referral from friend or family	28.9	28.6	28.0	29.5
Mailing	2.4	0.0	0.0	4.5
Print ad	10.8	7.1	8.0	13.6
Television ad	6.0	0.0	4.0	9.1
Internet	8.4	0.0	12.0	9.1
Other	36.1	50.0	44.0	27.3

SOURCE: ALP survey.

current individual professional, 34 percent reported more than ten years, 26 percent reported five to ten years, 32 percent reported one to five years, and 8 percent reported less than one year. For respondents who receive only advisory services and for respondents who receive both types of services from their individual professional, the most common length of relationship is more than ten years. Ten respondents who receive only brokerage services reported that the length of the relationship is between one and five years, and nine respondents who receive only brokerage services reported that the length of the relationship is more than ten years (see Table 6.6).

Table 6.6
Length of Time with Same Individual Professional and Customer Satisfaction

Survey	All Responses (239) (%)	Advisory Service Only (30) (%)	Brokerage Service Only (29) (%)	Both Types of Services (180) (%)
About how long have you been doing business with this individual?				
Less than one year	7.5	20.0	6.9	5.6
1–5 years	31.8	23.3	34.5	32.8
5–10 years	26.4	20.0	27.6	27.2
More than 10 years	34.3	36.7	31.0	34.4
I am very satisfied with the service that I receive from this individual.				
Strongly disagree	7.1	0.0	6.9	8.3
Disagree	2.1	3.3	3.4	1.7
Neither agree nor disagree	15.9	26.7	10.3	15.0
Agree	41.4	43.3	62.1	37.8
Strongly agree	33.5	26.7	17.2	37.2
I trust that this individual acts in my best interest.				
Strongly disagree	7.1	0.0	3.4	8.9
Disagree	2.5	6.7	6.9	1.1
Neither agree nor disagree	15.1	26.7	17.2	12.8
Agree	35.1	33.3	51.7	32.8
Strongly agree	40.2	33.3	20.7	44.4
I believe that this individual provides me with a valuable service.				
Strongly disagree	7.5	0.0	6.9	8.9
Disagree	1.7	0.0	6.9	1.1
Neither agree nor disagree	11.7	20.0	17.2	9.4
Agree	41.0	53.3	51.7	37.2
Strongly agree	38.1	26.7	17.2	43.3

SOURCE: ALP survey.

Most respondents are satisfied with their individual professionals. At least 70 percent of respondents reported that they agree or strongly agree with the statements: I am very satisfied with the service that I receive from this individual; I trust that this individual acts in my best interest; I believe that this individual provides me with a valuable service. This same result holds true when we condition on the type of service provided, with one minor exception: Sixty-nine percent of respondents whose individual professional provides only brokerage services reported that they are being provided with a valuable service.

Respondents who have been working with their individual professional for at least ten years expressed even greater satisfaction: Seventy-eight percent agreed or strongly agreed that they were very satisfied with the service that they receive, 83 percent agreed or strongly agreed that their individual professional acts in their best interest, and 82 percent agreed or strongly agreed that they are being provided with a valuable service.

When we examined the length of the relationship with the current firm, we found a similar pattern to that we found with individual professionals. In general, as shown in Table 6.7, respondents reported that they have been working with the current firm for several years. Overall, 42 percent of respondents reported that they have been working with their current firm for more than ten years. For respondents who receive advisory services or both types of services from a firm, the most common length of the relationship is more than ten years. For respondents who receive brokerage services only, the most common length of relationship is between five and ten years.

As we found with the results on individual professionals, respondents tended to be satisfied with their firms. At least 70 percent of respondents reported that they agreed or strongly agreed with these statements: I am very satisfied with the service that I receive from this firm; I trust that this firm acts in my best interest; I believe that this firm provides me with a valuable service. When we condition on the type of service provided, one category in which respondents indicate a lower level of satisfaction is the degree to which they trust that the firm that provides brokerage services acts in their best interest. In this case, only 48 percent of respondents agreed or strongly agreed with the statement.

We found that respondents who have been working with their firm for at least ten years tended to express even greater satisfaction: Eighty-six percent agreed or strongly agreed that they are very satisfied with the service that they receive, 77 percent agreed or strongly agreed that their individual professional acts in their best interest, and 83 percent agreed or strongly agreed that they are being provided with a valuable service.

We also asked respondents two open-ended questions: "What do you like about the service that you receive from this individual professional?" and "What do you dislike about the service that you receive from this individual professional?" Respondents reported what they liked about 235 individual professionals. Of these professionals, 30 provide advisory services, 27 provide brokerage services, and 178 provide both types of services.

We coded comments by broad categorizations. The most common types of positive comments are presented in Table 6.8. Examples of comments that are categorized as accessibility or attentiveness are, "She makes certain she stays updated on any changes I have made in the direction of my financial future," and "this person is available when I need him." Comments are coded as relationship or personality if the respondent said that he or she likes the individual professional's personality or that he or she feels like the relationship is a good one. For example, comments might include that the individual professional is "personable" or "friendly" or that the respondent feels that he or she receives "personalized service." Comments that cited

Table 6.7
Length of Time with Same Firm and Customer Satisfaction

Survey	All Responses (83) (%)	Advisory Service Only (14) (%)	Brokerage Service Only (25) (%)	Both Types of Services (44) (%)
About how long have you been doing business with this firm?				
Less than one year	7.2	7.1	12.0	4.5
1–5 years	25.3	21.4	28.0	25.0
5–10 years	25.3	7.1	32.0	27.3
More than 10 years	42.2	64.3	28.0	43.2
I am very satisfied with the service that I receive from this firm.				
Strongly disagree	7.2	7.1	4.0	9.1
Disagree	1.2	0.0	4.0	0.0
Neither agree nor disagree	19.3	21.4	24.0	15.9
Agree	38.6	35.7	32.0	43.2
Strongly agree	33.7	35.7	36.0	31.8
I trust that this firm acts in my best interest.				
Strongly disagree	6.0	7.1	4.0	6.8
Disagree	2.4	0.0	8.0	0.0
Neither agree nor disagree	31.3	28.6	40.0	27.3
Agree	31.3	35.7	20.0	36.4
Strongly agree	28.9	28.6	28.0	29.5
I believe that this firm provides me with a valuable service.				
Strongly disagree	7.2	7.1	4.0	9.1
Disagree	1.2	0.0	0.0	2.3
Neither agree nor disagree	19.3	21.4	20.0	18.2
Agree	34.9	28.6	36.0	36.4
Strongly agree	37.3	42.9	40.0	34.1

SOURCE: ALP survey.

that the individual professional is knowledgeable or "knows her business" were coded as positive comments on expertise. Some examples of comments that are categorized as understands, listens, or explains are "She asks pertinent questions about my lifestyle and goals," and "He knows and understands my needs, knows of my family and understands how I feel about my investments and what I need or want in life for me and my family."

The comments indicate that personal service is very important in an individual professional who provides financial services. The most common positive comments are related to

Table 6.8
Most Common Positive Comments About Individual Professionals

Positive Comment	All	Advisory	Brokerage	Both
Accessibility or attentiveness	80	6	9	65
Relationship or personality	74	8	7	59
Expertise	63	7	7	49
Understands, listens, or explains	41	7	1	33
Acts in my best interest	29	2	2	25
Performance	24	1	2	21
Honesty and integrity	22	5	5	12
Trust	10	1	0	9
Cost	8	2	1	5
Available products, options, or services	8	0	0	8

SOURCE: ALP survey.

NOTE: Two hundred thirty-five respondents reported positive comments. Entries indicate the number of times that the comment was reported.

personal service: accessibility and attentiveness; relationship and personality; and understands, listens, and explains.

We received far fewer negative comments. Respondents reported what they dislike about 109 individual professionals. Of these individual professionals, 14 provide advisory services to the respondent, 18 provide brokerage services, and 77 provide both types of services. We coded the negative comments in the same way as the positive comments. The most common negative comments are presented in Table 6.9.

As with the positive comments, the most common type of negative comment discusses lack of accessibility or attentiveness, such as "lack of contact" or "doesn't call me frequently enough." The second most common type of negative comment cites high fees or expensive service as a cause for dislike of the service received from the individual professional. Another common negative comment is that the individual professional does not act in the respondent's best interest. Examples of such comments are "I don't think he has my interests at heart. He is trying to make money for himself," or "often tries to sell securities that the brokerage firm is pushing."

When we asked respondents what they liked and disliked about the firm that provides their financial services, respondents reported many more positive comments than negative comments, as they did with individual professionals (see Table 6.10). Respondents gave positive comments on 79 firms and negative comments on 24 firms. Of the firms with positive comments, 25 provide only brokerage services to the respondent, 14 provide only advisory services, and 40 provide both types of services. Of the firms with negative comments, six provide brokerage services, five provide advisory services, and 13 provide both.

Like the positive comments about individual professionals, the most commonly reported positive comments about firms are related to accessibility and attentiveness. However, unlike the positive comments on individual professionals, cost is the second most commonly reported positive comment.

Table 6.9
Most Common Negative Comments About Individual Professionals

Negative Comment	All	Advisory	Brokerage	Both
Lack of accessibility or attentiveness	38	4	6	28
Cost	10	1	4	5
Does not act in my best interest	9	1	2	6
Lack of expertise	6	1	1	4
Performance	6	0	0	6
Relationship or personality	4	2	0	2
Lack of trust	3	0	1	2
Does not understand, listen, or explain	3	1	0	2
Dislike of the individual professional's firm	3	0	0	3

SOURCE: ALP survey.

NOTE: One hundred nine respondents reported negative comments. Entries indicate the number of time that the comment was reported.

Table 6.10
Most Common Positive Comments About Financial Service Firms

Positive Comment	All	Brokerage	Advisory	Both
Accessibility or attentiveness	25	7	6	12
Cost	12	4	0	8
Expertise	11	3	4	4
Online features, such as email	9	3	3	3
Relationship or personality	8	1	2	5
Performance	7	2	1	4
The firm itself	4	1	2	1
Reliability	4	1	0	3
Available products, options, or services; broad based	4	1	1	2
Honesty or integrity	3	0	1	2

SOURCE: ALP survey.

NOTE: Seventy-nine respondents reported positive comments. Entries indicate the number of times that the comment was reported.

Again, we found that the most commonly reported negative comments about firms are related to accessibility or attentiveness, as reported in Table 6.11. Negative comments about firms also reported disappointment in the level of expertise and in the online features of the firm.

Table 6.11
Most Common Negative Comments About Financial Service Firms

Negative Comment	All	Brokerage	Advisory	Both
Lack of accessibility or attentiveness	7	1	1	5
Lack of expertise	3	2	1	0
Online features, such as email	3	1	0	2

SOURCE: ALP survey.

NOTE: Twenty-four respondents reported negative comments. Entries indicate the number of times that the comment was reported.

Reasons Not to Use a Financial Service Provider

We asked respondents who reported that they do not use a financial service provider for the reasons that they do not employ one. For respondents who use a financial service provider only for advisory services, we asked why they do not use a financial service provider for brokerage services. Likewise, for respondents who use a financial service provider for brokerage services only, we asked why they do not use a financial service provider for advisory services. The results are summarized in Table 6.12.

Respondents were given the following five specified choices for why they might not employ a financial service provider, in addition to an other category, and asked to choose all that apply: no money for investments; too expensive; too hard to choose one; do not need assistance with financial decisions; or had one and did not like him, her, or the firm.

For respondents who do not use a financial service provider at all, the most common specified reason (47 percent) is "no money for investments." For respondents who do not use a financial service provider for brokerage services, the most common specified reason (36 percent) is "no money for investments." For respondents who do not use a financial service provider for advisory services, the most common reason (18 percent) is that the respondent does not "need assistance with [his or her] financial decisions."

We replicated the analysis for respondents who do not currently use a financial service provider, conditioning on age, education, income, geographic region, and investment

Table 6.12
Reasons Given for Not Using a Financial Professional

Reason	Brokerage and Advisory Services	Brokerage Services	Advisory Services
No money for investments (%)	47.1	35.5	17.6
Too expensive (%)	13.2	9.7	20.6
Too hard to choose one (%)	6.2	0.0	2.9
Do not need assistance with financial decisions (%)	21.5	12.9	52.9
Had one and did not like him, her, or the firm (%)	8.2	0.0	11.8
Observations	340	31	34

SOURCE: ALP survey.

experience.[6] For each category, the most common reason to not use a financial service provider is "no money for investments," except for respondents in households with income greater than $75,000, respondents who live in the Northeast region, and respondents who are characterized as experienced investors. For these respondents, the most common reason not to use a financial service provider is not needing help with financial decisions.

Relative Inclination to Seek Services from Brokers or Investment Advisers

The last section of the survey presented all respondents with definitions of *broker* and *investment adviser*, including a description of common job titles, legal duties, and typical compensation. We first asked respondents: "On a scale from 0 to 100, what do you think is the percent chance that you will seek (or continue to seek) services from a [broker/investment adviser] in the next five years?" For respondents who reported a positive probability, we followed up with a question on investment advice: "On a scale from 0 to 100, what do you think is the percent chance that you will seek (or continue to seek) investment advice from a [broker/investment adviser] in the next five years?" Lastly, we ask respondents to rate the degree to which they agree with the following statement: "I would trust investment advice from a [broker/investment adviser]."

Answers, as shown in Table 6.13, indicate that respondents were roughly equally likely to seek services in general and investment advice in particular from investment advisers and brokers. On average, respondents were equally likely to seek services, in general, from investment advisers and brokers (37.1 percent versus 36.6 percent),[7] but the median response is slightly higher for services from an investment adviser (25 percent versus 20 percent). Almost 29 percent of respondents reported a 0 percent chance that they will seek services from a broker, and 28 percent of respondents reported a 0 percent chance that they will seek services from an investment adviser. Among respondents who reported a positive probability that they will seek services, in general, from a broker or investment adviser, the median response indicates an equal willingness to seek investment advice from investment advisers and brokers (50 percent), whereas the average response indicates a slightly greater willingness to seek services from an investment adviser (51.9 percent versus 47.7 percent).[8] Of respondents who reported a positive probability of seeking services from a broker, 4 percent, or 16 respondents, reported a 0 percent chance of seeking investment advice from a broker. Of those respondents who reported a positive probability seeking services from an investment adviser, only one respondent reported a 0 percent chance of seeking investment advice from an investment adviser.

Types of Assistance That Respondents Would Like with Financial Matters

We asked all respondents, "what kind of professional assistance with financial matters would you find most helpful at this point in your life?" with the following options: asset management, college-saving planning, debt consolidation or management, developing a budget and saving plan, estate planning, executing stock or mutual fund transactions, general financial planning, investment advising, retirement planning, or other. A majority of respondents (62 percent) would like assistance with retirement planning. Many respondents would also like assistance

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6 The complete results are in Table G.3 in Appendix G.

7 These means are not significantly different from one another at any conventional levels of statistical significance.

8 These means are not significantly different from one another at any conventional levels of statistical significance.

Table 6.13
Inclination to Seek Future Services from Investment Advisers and Brokers

	Investment Adviser			Broker		
Survey	Mean (%)	Median (%)	n	Mean (%)	Median (%)	n
Percent chance of seeking *services* from [investment adviser/broker] in the next five years	37.1	25	634	36.6	20	637
Percent chance of seeking *investment advice* from [investment adviser/broker] in the next five years	51.9	50	454	47.7	50	458
I would trust investment advice from [investment adviser/broker] (1 = strongly disagree, 5 = strongly agree)	3.4	3	635	3.1	3	637

SOURCE: ALP survey.

with investment advising (41 percent), financial planning (38 percent), and estate planning (35 percent).

We replicated the analysis conditioning on age, education, income, geographic region, investment experience, and whether the respondent reported using a financial service provider.[9] Across all groups, the most commonly selected option is "retirement planning." Across all groups, the second most common is "investment advising," except for respondents who live in the West region, respondents who do not have a college degree, respondents who did not report using a financial service provider, or respondents who are classified as inexperienced. For the first three of those groups, the second most commonly selected option is "general financial planning." For the last group, those respondents classified as inexperienced, the second most commonly selected option is "developing a budget and savings plan."

Focus Groups

Focus groups allow for interactive discussion of the topics and allow moderators to follow up on beliefs and understanding behind responses. Although focus-group participants are not nationally representative and data collected during focus groups are qualitative in nature, this method often provides researchers with important evidence on the more nuanced issues surrounding topics. Indeed, we believe that we gained a greater understanding about some of the beliefs regarding views of the financial service industry. Moreover, evidence suggests similarities to the broader population represented in the ALP.

We begin with a brief discussion of our methodology. Next, we present general impressions from the focus groups on the financial service industry. We then describe participants' financial decisionmaking and experience with financial service providers. Lastly, we examine some of the perceived differences between investment advisers and broker-dealers.

[9] Complete results are in Table G.4 in Appendix G.

Methods

We conducted six focus groups of ten to 12 participants each, representing both experienced and inexperienced investors. As with survey respondents, focus-group participants were determined to be experienced investors if they held investments outside of retirement accounts, had formal training in finance or investing, or held investments only with retirement accounts but answered positively to questions eliciting their self-assessed financial understanding, such as the nature and causes of increases in their investments, seeking out information about their investments when necessary, and knowing the different investment options available to them. Participants who did not meet these requirements were deemed inexperienced investors.

The 67 participants ranged from 22 to 77 years of age, with two-thirds of participants older than 40. The mix of racial and ethnic background includes 44 white but not Hispanic, 18 black, 2 Hispanic, and 3 Asian participants. The focus groups were held in one of two locations (Alexandria, Virginia, and Fort Wayne, Indiana) in September and October 2007. We employed the services of outside firms to recruit our participants. For the Virginia focus groups, we used a recruiting firm that maintains a database of approximately 17,000 individuals from the Washington, D.C., metropolitan area, including northern Virginia and parts of Maryland. For the Indiana focus groups, we used a local recruiting firm that maintains a database of approximately 35,000 individuals, mainly from Allen County, Indiana, with a small percentage (9–10 percent) of individuals who reside in counties immediately adjacent to Allen County.

Each location included two groups of experienced investors and one group of inexperienced investors. The approximate ratio of two-thirds experienced investors and one-third inexperienced investors is similar to the ratio among the ALP respondents. We asked them a range of questions about their level of understanding and their own experience with the financial service industry. We also presented them with sample advertisements from both broker-dealers and investment advisers and asked what types of products and services and levels of interaction they expected from each.

Investment Experience

Almost all participants held investments in retirement accounts, primarily through their employer. Many had investments outside of retirement accounts, primarily in mutual funds, and some held individual stocks and annuities. A few individuals who are particularly uncertain about what to do with their money have put their savings into money-market accounts (MMA) and certificates of deposit (CDs). These participants felt that they had received poor financial advice in the past and were unsure how to invest it, so they went with the perceived security of MMAs and CDs.

Participant age ranged from 22 to 77 years, and investment experience ranged from two years to 40 years. The vast majority of participants described their level of financial knowledge as low, including many who had been investing for several years. About 10 percent of participants considered their level of financial knowledge to be good or advanced. Participants attributed their lack of knowledge to having little interest in finances, lack of time to learn and keep up, and the fact that financial literature is complicated and confusing. Some mentioned that there is a lot of conflicting information available and that they are not sure which sources to trust.

General Impressions of the Financial Service Industry

When asked about their general views of the financial service industry, participants tended to say that the industry is complicated. As with any industry, they feel that there are both honest and dishonest individuals within the financial service industry. Some noted that recent corporate scandals, such as those at WorldCom and Enron, have led the public to view the financial service industry with more skepticism. It is an industry based on trust, and many participants noted that they did not trust the industry.

Many of those with investments acknowledged that they were unsure what they were being charged for the investments they currently hold. They believe that there are hidden fees and that investment professionals will not provide them with certain information unless they specifically ask for it. They believe that one must know the right questions to ask or be at a disadvantage. When asked about financial service advertisements that they may have seen, participants reported that they believe that advertisements for investment professionals try to make people think that it is easy to get started and that the company will work for its clients to help them attain a certain lifestyle.

Participants most frequently cited the following reasons they see as to why people fail to invest:

- They think that it is necessary to have a large amount of disposable income to invest.
- They have no money to invest.
- They fear losing their money in investments.
- They lack knowledge about investing.
- They see the financial service industry as too complex to navigate.

Investor Decisionmaking and Experience with Financial Service Professionals

Sources of information. Participants reported getting information about financial products and services from a variety of sources, including the Internet, friends and family, financial magazines, television, prospectuses, presentations at work, and financial service professionals (including advisers, accountants, insurance agents, and their bank).

Choosing an investment professional. Roughly half of participants reported that they currently use a financial service provider. Those who have investments but do not use a financial service provider explained that they trusted themselves as much as they trusted a professional with their money.

Trust of the individual financial service professional was the most cited feature of what investors would be looking for in a financial service provider. Trust of the individual professional was cited as more important than trust of the firm for which that individual works. Many participants had a preference for older, established firms, because it shows staying power and the ability to ride out hard times. The majority of participants currently working with a financial service provider found that provider through personal or professional referral. When we asked participants who do not currently use a financial service provider how they would find one if they chose to employ one in the future, referral was the most common response.

Participants felt that the personal relationship is very important and would like an individual who is accessible. Though the majority of those who use a financial service provider were happy with the relationship and the service, several participants did note that they were not satisfied primarily due to lack of personal interaction. These comments are similar to those reported by ALP respondents. Many had gone years without hearing from their financial ser-

vice provider, but some recognized that they were partly responsible for this lack of communication. Others noted that their financial service provider did not seem to do much.

Participants were asked what they like about their relationship with their financial service provider, if they currently use one; otherwise, they were asked what they would seek in a relationship with a financial service provider if they were to employ one. Some participants preferred a very hands-off relationship with their financial service provider. They stated that they had neither the inclination nor the time to follow the markets and were happy to turn that job over to a professional. Other participants thought that they would like to be a partner in their financial decisions and have a say in what is done with their money. However, these participants tended to realize that there is much about the financial service industry that they do not know or understand, so it is important to have a financial service provider who will take the time to educate them about the market and the various products available. Many participants felt that, because their assets were too modest, they would not be of interest to the majority of financial service providers to spend the necessary amount of time to work with and educate them.

Contact with investment professionals. Some participants said that they would prefer to communicate with an individual professional via the phone, while others cited preference for face-to-face meetings and others preferred email communication. Participants felt that, in an ideal relationship, they would want to meet with their representative more frequently at first (monthly) and then on a quarterly or semiannual basis after they felt more comfortable in the relationship. Participants who feel fairly knowledgeable about their investments wanted less contact with their investment professional. These participants felt that receiving quarterly statements in the mail was enough contact.

Desired services. Of those who were looking for professional help, all cited retirement planning as a needed service. They considered retirement planning to involve not only saving for retirement but also determining how the funds should be spent and invested during retirement. The other desired services that participants mentioned most were education planning, insurance planning, and estate planning. A few participants noted needing help with budget planning and saving to buy a house.

Participants were divided over whether it is better to have all of their investments handled by one firm or to have several firms helping them. Participants cited convenience as an advantage to having one firm: The individual professional would be able to see the whole financial picture and better advise the client and reduce the amount of paperwork to track. Other participants wanted to spread their investments across a couple of firms, believing that this would reduce their risks. They also noted that some firms specialize in certain types of investments and that it may be better to play to the strengths of certain firms. Still others preferred the idea of entrusting some of their money to financial service providers but also investing a portion of their money on their own.

Perceived Differences Between Investment Advisers and Brokers

Focus-group participants displayed some confusion regarding the role of investment advisers and brokers, as we observed with ALP respondents. Focus-group discussion helped illuminate the sources of confusion. We begin with a discussion of participants' initial beliefs regarding the differences between investment advisers and broker-dealers. Next, we will describe their reactions to sample advertisements from investment advisers and broker-dealers. We then explore participants' inclination to seek services in general and investment advice in particular

from investment advisers and broker-dealers. Lastly, we will describe some further reactions to investment advisers' and broker-dealers' marketing materials.

Initial beliefs regarding the differences between investment advisers and brokers. To assess participant levels of understanding regarding the roles of various financial service professionals, we administered a short questionnaire. The questionnaire was given before detailed discussion on the distinction between investment advisers and brokers to capture their understanding coming into the focus-group session and not reflect anything they might learn during the focus-group session. The questionnaire is similar to the first section of survey questions on financial service providers administered to ALP respondents: Participants were presented with a series of specific services and obligations and were asked to indicate which items applied to the following financial service professionals: investment advisers, brokers, financial advisors, financial consultants, financial planners, or none of the above. Table 6.14 provides the results of that questionnaire.[10]

Focus-group responses were quite similar to those of the household survey. Comparing beliefs on services provided by investment advisers to services provided by brokers, participants were more likely to say that investment advisers provide advice about securities, recommend specific investments, and provide planning services. Participants were more likely to say that brokers rather than investment advisers execute stock transactions and earn commissions. Participants responded similarly that investment advisers and brokers are required to act in the client's best interest. Participants were more likely to say that brokers rather than investment advisers are required to disclose any conflicts of interest.

We note some key differences between these responses from focus-group participants and responses from survey respondents. Responses indicate that a much smaller share of focus-group participants (5 percent) believe that investment advisers receive commissions than survey respondents did (43 percent). Focus-group participants were more likely to report that both investment advisers and brokers are required to act in the client's best interest (64 percent and 63 percent, respectively) than did ALP respondents (49 percent and 42 percent, respectively). Furthermore, focus-group participants were more likely than survey respondents to report that brokers are required to disclose any conflicts of interest. In fact, focus-group participants were more likely to report that brokers, rather than investment advisers, must disclose conflicts, whereas ALP respondents were more likely to report that investment advisers must disclose conflicts.

Initial reactions to investment advisers' and broker-dealers' advertisements. The first set of advertisements that we presented to focus-group participants were general advertisements from actual firms taken from magazines. Any identifying information or marks were stripped from the advertisements. The firm A advertisement on brokerage services stressed the importance of building a relationship with one's financial consultant based on trust. The advertisement further described the expertise of its financial consultants and its research tools (with fine print detailing that the research tools provide general, not personal, advice). The advertisement specifically mentioned mutual funds and stocks. The firm B advertisement, taken from an investment advisory firm, stressed the importance of careful planning so that the reader's estate will be left to his or her beneficiaries rather than to the IRS. This advertisement also

[10] Table F.4 in Appendix F provides a breakdown of questionnaire responses by age, education, location, investment experience, and whether the participant has a financial service provider.

Table 6.14
Participants' Beliefs About Financial Service Professionals

What types of financial service professionals: (check all that apply)	Investment Advisers (%)	Brokers (%)	Financial Advisors or Consultants (%)	Financial Planners (%)	None of These (%)
Provide advice about securities (e.g., shares of stocks or mutual funds) as part of their regular business	85	61	76	63	0
Execute stock or mutual fund transactions on the client's behalf	27	84	22	18	0
Recommend specific investments	93	46	67	46	0
Provide retirement planning	39	12	81	91	0
Provide general financial planning	33	16	79	91	0
Typically receive commissions on purchases or trades that the client makes	5	96	43	33	0
Are typically paid based on the amount of assets that the client holds	51	57	45	19	6
Are required by law to act in the client's best interest	64	63	58	57	18
Are required by law to disclose any conflicts of interest	60	70	61	72	18

SOURCE: Focus-group survey, 67 participants.

highlighted the firm's experience and expertise. The advertisement specifically mentioned philanthropy, asset management, and sophisticated wealth-transfer strategies.

In discussing what appealed to them about firm A, many participants mentioned that they liked the trust message and that the advertisement implied that all of its employees are well trained. A commonly mentioned dislike of the firm was the fine print detailing that the research tools are not personal advice.

In discussing what they found appealing about firm B, many participants mentioned that they believed that firm B has a lot of expertise and that they think that they could benefit from

its services, such as asset management. However, given the tone of the advertisement, many participants also thought that they do not have enough money to be a client at firm B.

Inclination to seek services from investment advisers or brokers. Participants were presented with fact sheets on investment advisers and brokers. The information on the fact sheets included the same information as the descriptions given to ALP survey respondents: definitions of *broker* and *investment adviser*, including a description of common job titles, legal duties, and typical compensation. Even after being presented with fact sheets, participants were confused by the different titles. They noted that the common job titles for investment advisers and broker-dealers are so similar that people can easily get confused over the type of professional with which they are working. Some participants said they knew which type of investment professional they have, but most did not.

Participants expressed interest in the fact that brokers have to be certified and investment advisers do not. Several interpreted this to mean that advisers were not as qualified as the brokers.

Some did not understand such terms as *fiduciary* and whether fiduciary was a higher standard than suitability. Some participants did not think that the legal requirements for either investment advisers or brokers were stringent enough. Several participants mentioned that, if an investment adviser made a costly mistake with a client's money, they thought that it would be extremely difficult to prove that the adviser was not acting in what he or she perceived to be the client's best interest. Other participants did not like that brokers had to recommend products that were suitable for them. They thought that *suitable* was too vague a term and that it was not clear how the broker would determine suitability. Many participants also noted that investment advisers have to disclose conflicts of interest while brokers do not.

Further Reactions to Investment Advisers' and Broker-Dealers' Marketing Materials. Last, after discussion of differences between investment advisers and brokers, we presented participants with two more sets of marketing materials. These materials were adapted from documents that we collected in our business-document collection. All identifying details were stripped from the materials.

The first set of materials was marketing pamphlets from firm C, a dually registered firm, and firm D, an investment advisory firm. These pamphlets gave more detail than did the initial set of advertisements. The firm C pamphlet detailed the firm's experience, expertise, wide range of services, and size. This pamphlet also mentioned that firm C works with clients regardless of their amount of assets and included a disclaimer that it generally works as a broker-dealer, except in a few instances, in which the client will be told in writing that it is acting as an investment adviser. Specifically mentioned services and products included financial planning, retirement planning, estate planning, and various investment products, including annuities, mutual funds, stocks, and options. The firm D pamphlet detailed the firm's experience and expertise, as well as the personal service that clients receive from the firm. The firm D pamphlet specified a $100,000 minimum and discussed its fee structure. Firm D offered only a discretionary account.

Some participants favored firm C, citing the lack of account minimum and wide range of services. Some of these participants said that they would prefer firm D but that the account minimum was a barrier. Regarding firm D, some respondents did not like the notion of a discretionary account. They preferred more interaction and would want to give specific direction to their financial professional. On the other hand, many respondents liked the personal-

relationship aspect of firm D. Many participants stated they believe that they would have a long-term relationship with a firm like firm D, if only they had enough assets.

Several participants noted the irony that, to enlist an investment adviser, one has to have what the participants considered to be a high account minimum, although there are many people with not much in investable assets who really need the advice.[11] Many focus-group participants found the brokerage advertisements to be more in their ballpark in terms of account minimums and fees, although almost all respondents presumed that it would involve advice. They liked the concept of directing a broker but felt that they were not knowledgeable enough to provide good instruction.

The last set of materials was taken from the same dually registered firm, firm E, but one pamphlet detailed brokerage services and the other detailed advisory services. Again, we heard that brokerage services were more appealing in terms of cost and lack of account minimum—trades for firm E started at $12.95 per trade, and the fee for advisory services was a one-time $250 fee, and the pamphlet mentioned that advisory services are "only appropriate for investors with $100,000 or more in investable assets." However, all participants felt that the advisory services described in the pamphlet would be valuable to them.

Differences Between the Experienced and Inexperienced Groups

The inexperienced group noted that often they did not understand the terminology used by the financial service industry. They often felt that professionals talk over them, which causes them to feel even less knowledgeable. In such instances, people do not feel comfortable asking questions about or even talking about money, so they avoid the topic altogether. In general, they felt that financial-management issues are discussed in esoteric terms. They felt that financial information should be presented in terms of more practical concepts. Some in these groups also struggled with some basic financial distinctions, such as differences between stocks and mutual funds.

Other Comments

At the end of each focus-group session, we asked participants whether they had anything else that they wanted to discuss. Most groups cited a lack of financial knowledge across the general public as a serious problem. Some suggested that financial education should be mandatory in schools. Others suggested that, to get financial aid in college, a financial-education course should be required. They noted that many young people are entering the workforce with large amounts of debt and zero financial knowledge. Others expressed a desire for retirement accounts not tied to one's job, and others expressed concern about medical insurance after retirement.

Conclusion

Overall, we found that many survey respondents and focus-group participants do not understand key distinctions between investment advisers and broker-dealers—their duties, the titles they use, the firms for which they work, or the services they offer. Yet they tend to have relatively long-term relationships with their financial service professionals, and they expressed high

[11] Recall that participants in the firm interviews expressed a similar concern.

levels of satisfaction with their services. This satisfaction was often reported to arise from the personal attention the investor receives. We do not have evidence on how levels of satisfaction vary with the actual financial returns arising from this relationship. In fact, focus-group participants with investments acknowledged uncertainty about the fees they pay for their investments, and survey responses also indicate confusion about fees.

In general, the roles of broker-dealers and investment advisers are confusing to most survey respondents and focus-group participants. Answers from survey respondents and focus-group participants indicated that they have a general sense of the difference in services offered by brokers and by investment advisers but that they are not clear about their specific legal duties. Furthermore, answers indicated that respondents and participants view financial advisors and financial consultants as being more similar in terms of services and duties to investment advisers than to brokers. However, regardless of the type of service (advisory or brokerage) received from the individual professional, the most commonly cited titles are generic titles, such as advisor, financial advisor, or financial consultant. Focus-group participants shed further light on this confusion when they commented that the interchangeable titles and "we do it all" advertisements made it difficult to discern broker-dealers from investment advisers.

Survey respondents indicated that they are about equally likely to seek services or investment advice from a broker or from an investment adviser. Comments from focus-group participants may illuminate these results. Like survey respondents, focus-group participants were about equally likely to seek services from an investment adviser or a broker but for different reasons. The compensation structures, disclosure requirements, and legal duties make investment advisers appealing. However, account minimums, industry certification, and costs make brokers appealing. Even though we made attempts to explain fiduciary duty and suitability in plain language, focus-group participants struggled to understand the differences between the standards of care. Furthermore, even after explaining to them that a fiduciary duty is generally a higher standard of care, focus-group participants expressed doubt that the standards are different in practice.

Despite their confusion, however, most respondents and participants expressed satisfaction with their financial service providers. The most commonly cited reasons for survey respondens' satisfaction were the professional's attentiveness and accessibility, which were mentioned even more often than expertise. Although focus-group members also mentioned these qualities, they more often mentioned trust. Finally, respondents and participants often indicated that they recognize the value of investment advice. Those who currently receive investment advice often reported that they find the service to be valuable. Many of those who do not currently receive investment advice expressed a desire to receive these services but are concerned that their relatively low amount of investable assets makes it difficult to find these valuable services.

CHAPTER SEVEN

Conclusions

This report provides a factual description of the current state of the investment adviser and broker-dealer industries. Specifically, the report addresses two primary questions:

- What are the current business practices of broker-dealers and investment advisers?
- Do investors understand the differences between and relationships among broker-dealers and investment advisers?

Based on a large-scale empirical inquiry of the broker-dealers and investment advisers, we have characterized the current industry along a number of dimensions—including size, level of assets, clientele, nature of services and fees, and disclosures—to identify the distinctions between investment advisers and broker-dealers. We also gave special attention to the dual registrations and firm affiliations that may make it more difficult to distinguish among the services and practices of the two categories of financial professionals. For other perspectives, we examined business documents and Web sites to identify how firms present themselves to their clients and compared these documents with administrative data on file for these firms. We administered a large-scale, national household survey and conducted intensive focus-group discussions to gauge understanding of distinctions between the different types of financial service providers. We summarize our key findings in this chapter.

Our review of the regulatory and legal environment for broker-dealers and investment advisers suggests that current laws and regulations are based on distinctions between the two types of financial professionals that date back to the early 20th century and that these distinctions appear to be eroding today. Recently, the SEC attempted to clarify the boundaries between broker-dealers and investment advisers—namely in the 2005 rule, "Certain Broker-Dealers Deemed Not to Be Investment Advisers" (SEC, 2005); however, the ruling was challenged and eventually overturned. Most of the stakeholders we interviewed expressed concern that the business practices of investment advisers and broker-dealers have become increasingly similar, especially with the introduction of fee-based brokerage programs, and that investors understand little about their differences. They pointed to recent marketing practices that emphasize both types of service and the use of generic titles, such as *financial advisor* and *financial consultant*, for both types of professionals. Academic studies and media and trade reports confirm that the industry is becoming increasingly complex and intertwined and that investors do not operate with a clear understanding of the different functions and fiduciary responsibilities of their financial professionals.

To analyze whether this is indeed the case, we conducted empirical analyses to address the nature of the industry on the one hand and the nature of investor understanding on the

other. Our industry analyses began with presentation of a range of descriptive statistics based on data provided in regulatory filings of thousands of investment advisers and broker-dealers. We also conducted a closer analysis of the data on firms that report offering both brokerage and advisory services or are affiliated with firms that offer the complementary service. This analysis was intended to clarify the distinctions between such firms and those that specialize solely in brokerage or advisory services.

To provide a more in-depth look at current practices in the industry, we collected and examined business documents used by selected investment advisers and broker-dealers sampled from the complete listing of firms in the administrative databases analyzed. We also conducted 34 interviews with financial professionals from brokerage firms and investment advisory firms.

To analyze what investors understand regarding the distinction between investment advisers and broker-dealers, we administered a nationwide survey with 654 respondents and conducted six intensive focus groups with 67 participants in Fort Wayne, Indiana, and Alexandria, Virginia. The household survey addresses several major topics on financial service providers, including (1) beliefs about the differences between investment advisers and broker-dealers, (2) experience with different types of financial service providers, and (3) inclination toward employing the services of investment advisers and broker-dealers. The focus-group discussions involved in-depth exploration of these topics, as well as reactions to various financial service marketing materials.

What Are the Current Business Practices of Broker-Dealers and Investment Advisers?

The nature of the administrative data made it difficult to identify the business practices of broker-dealers and investment advisers with any certainty. While the data sets to which we had access were extensive, they were often not strictly comparable. The type and extent of the disclosures made by each type of firm are exceedingly different. Therefore, direct comparisons between the industries are relatively sporadic and unsystematic. Furthermore, by comparing details across databases, we also noted many inconsistencies in the information reported. These findings suggest that many financial service professionals themselves are confused about how they should be reporting their activities.

In addition, among firms that are either dually registered or affiliated with firms that offer complementary services, the advisory and brokerage services provided are difficult to disentangle. Corporations may have multiple subsidiaries or business units, each registered separately as an investment adviser or broker-dealer, but our data do not identify these relationships. To complicate matters further, some solely registered investment advisory firms have employees who are registered representatives of a broker-dealer. Quite frequently, one such employee is the sole proprietor or founder of a small investment advisory firm.

Despite these challenges, however, the portrait of the financial service industry that emerges from the data is extremely heterogeneous in terms of firm size, services offered, activities of affiliated firms, and nearly every other dimension we examined. This variation is true of investment advisers and broker-dealers, as well as across these industries. Our analysis of about 15,000 firms from the fourth quarter of 2006 reveals that most of them were reportedly engaged, either directly or indirectly, as either an investment adviser or as a broker-dealer but

not both. Many others were directly engaged in only one type of activity but were affiliated with a firm engaged in the other type. Finally, the remainder—a minority of firms—were directly engaged in both brokerage and advisory activities.

As a firm's economic scope grows, it engages (unsurprisingly) in a much fuller range of services and consequently is either affiliated with other financial service firms or conducts a significant amount of business in both the investment advisory and brokerage fields. Smaller firms, which are much more numerous, tend to provide a more limited and focused range of either investment advisory or brokerage services. Still, they frequently reported some sort of affiliation with firms providing the complementary service.

While the differences described here come through in the statistics produced based on the administrative data, it is not clear how these differences are presented to investors. What appear in the data to be affiliations between two or more registrants could be viewed by customers as a single business or as completely distinct entities.

With our business-document collection and firm interviews, we examined how these activities are portrayed to investors and what investors understand about the information they are given. Although the business-document analysis is limited by the low response rate among selected firms and partial compliance rate among responding firms, the submitted documents and documents available on the Web provide illuminating examples of the range of products and services offered by these firms, the variety of relationships among these firms, and the manner in which these alternative offerings and relationships are presented to prospective clients. If prospective clients were exposed to the documents we received and the Web sites we reviewed, they would likely obtain a very uneven understanding about these firms. In some cases, they would face a flood of information, only some of which could possibly be processed. In other cases, they receive only a trickle of information. In any case, they would likely be left to turn to individual professionals to summarize the key aspects of the prospective relationship.

The firm interviews provide supplemental information on these and other topics. Perhaps of most use are the investment advisers' and broker-dealers' perceptions of the level of investor knowledge in general and investor understanding of the differences between investment advisers and broker-dealers in particular. The concerns they typically express about regulatory burdens are frequently weighed against the recognized need to protect unsophisticated investors. Interview participants reported that investors rarely read the disclosures they provide, regardless of how digestible they make these documents. They acknowledged that their business relationships with clients are built on trust rather than investor understanding of the services and responsibilities involved and that it is crucial for the financial service industry to maintain that foundation of trust.

Do Investors Understand the Differences Between and Relationships Among Broker-Dealers and Investment Advisers?

Given the growing complexity of the financial service market, we were not surprised to find that many survey respondents and focus-group participants did not understand key distinctions between investment advisers and broker-dealers—their duties, the titles they use, the firms for which they work, or the services they offer. Yet they tended to have relatively long-term relationships with their financial service professionals, and they expressed high levels of satisfaction with their services.

In general, the roles of broker-dealers and investment advisers are confusing to most survey respondents and focus-group participants. Beliefs reported by survey respondents and focus-group participants indicated that they have a general sense of the difference in services offered by brokers and by investment advisers but that they are not clear about their specific legal duties. Furthermore, these reports indicate that respondents and participants are unclear on the role of financial professionals who use generic titles, such as *financial advisor* and *financial consultant.*

Survey respondents indicated that they are about equally likely to seek services or investment advice from a broker as from an investment adviser. Comments from focus-group participants may illuminate these results. Like survey respondents, focus-group participants were about equally likely to seek services from an investment adviser or a broker, but for different reasons. The compensation structures, disclosure requirements, and legal duties make investment advisers appealing. However, account minimums, industry certification, and costs make brokers appealing. From the firm interviews, the investment advisers themselves expressed concern that there is a population of investors with a relatively low amount of investable assets who would like investment advice but do not meet the account minimums of most investment advisory firms.

We made attempts in our focus-group discussions to explain fiduciary duty and suitability in plain language, but participants struggled to understand the differences between the standards of care. Even after explaining to them that a fiduciary duty is generally a higher standard of care, focus-group participants expressed doubt that the standards are different in practice.

Despite their confusion, most respondents and participants expressed satisfaction with their own financial service providers. This satisfaction was often reported to arise from the personal attention the investor receives. We do not have evidence on how levels of satisfaction vary with the actual financial returns arising from this relationship. In fact, focus-group participants with investments acknowledged uncertainty about the fees they pay for their investments, and survey responses also indicate confusion about fees.

Overall, we found that the industry is very heterogeneous, with the thousands of firms taking many different forms and offering many different combinations of services and products. Partly because of this diversity of business models and services, investors typically fail to distinguish broker-dealers and investment advisers along the lines defined by federal regulations. Despite their apparent confusion about titles, duties, and fees, investors expressed high levels of satisfaction with the services they receive from their own financial service providers.

Today's investment adviser and broker-dealer industries are complex, heterogeneous industries. Regulating these industries presents many challenges. We hope that the information provided in this report will contribute to this important effort.

APPENDIX A

Descriptions of Regulatory Filings, Data Sets, and Use of the Data to Identify Dual and Affiliate Activity

Investment Advisers: Form ADV Data

In March 2007, the SEC Division of Investment Management provided us with IARD data for the fourth quarter of 2006, as well as quarterly data for each quarter from the fourth quarter of 2001 through the fourth quarter of 2005. Recall from Chapter Two that regulatory disclosures by investment advisory firms are made through Form ADV, which contains two parts. Part I contains general information about the nature and size of the adviser's business and disciplinary history within the firm (pertaining to either the company or individual employees). Part II of the form contains less structured data and includes disclosures about potential conflicts of interest.

Form ADV is the Uniform Application for Investment Adviser Registration. The investment adviser uses Form ADV to (1) register with the SEC, (2) register with one or more state securities authorities, and (3) amend those registrations. See SEC (2006).

The data set we used includes almost all of the information reported in Part IA of Form ADV. Part IA data include responses to a number of questions about the adviser, its business practices, the *persons* who own and control the adviser, and the *persons* who provide investment advice on its behalf.

Requested data from Part II of Form ADV were not electronically available, nor were requested quarterly data for the years 1999 and 2000 or for the first three quarters of 2006. Data for the first three quarters of 2006 were subsequently provided in August 2007, but these data include only a subset of the Part IA information: (1) identifying information, (2) registration information, and (3) total assets under management.

For the quarters with complete data—i.e., 2001–2006, excluding the first three quarters of 2006—the data describe a total of 150,195 reports. The data set begins with 7,614 advisers in the fourth quarter of 2001. The number falls to 7,560 in the first quarter of 2002 and then increases each quarter, reaching 10,484 in the fourth quarter of 2006. The biggest year-to-year increase occurs in the fourth quarter of 2006—an increase of 1,400 observations from the fourth quarter of 2005.

As described in the 2006 *Evolution Revolution* report (Investment Adviser Association and National Regulatory Services, 2006, p. 4), much of the growth in 2006 "is attributable to new registrations pursuant to SEC rule changes requiring that certain previously unregistered hedge-fund managers register as investment advisers by February 1, 2006." And indeed, the data we received for the first quarter of 2006 include a total of 10,274 advisers, indicating that most of the increase in registrants during this one-year period did occur in the first quarter. During 2006, however, a court decision invalidated the SEC rule requiring registration of

hedge funds (*Goldstein v SEC*, 371 U.S. App. D.C. 358, 2006). According to the 2007 *Evolution Revolution* report (National Regulatory Services and Investment Adviser Association, 2007), more than 700 hedge funds deregistered.

The IARD data we received pertain to firms that have applied for SEC registration. Many advisory firms complete Form ADV and register with state regulators but not the SEC and therefore are not included in these data. Eligibility for registration with the SEC is determined based on responses to items 2.A(1) through 2.A(11) on Form ADV. Among the 150,195 advisers in the database, 85 percent of the records indicate that the adviser has "assets under management of $25 million (in U.S. dollars) or more" (language from SEC, 2006). Among the remaining 23,092 adviser reports, all but 1,211 select at least one of the other eligibility criteria. Of the 1,211 that remain, 1,032 indicate that they "are no longer eligible to remain registered with the SEC." (language from SEC, 2006).

Broker-Dealers: Form BD and FOCUS Report Data

Form BD Data

In May 2007, FINRA sent us a file containing CRD data that describe Form BD information for 5,117 broker-dealers from the fourth quarter of 2006. Recall from Chapter Two that Form BD, the Uniform Application for Broker-Dealer Registration (SEC, 2007a), requires information on the broker-dealer; its business practices; persons, firm, and organizations that are controlled, controlling, or under common control; and criminal, civil, and other actions. The data we received include identifying and contact information; SEC-registration information; legal status; and information concerning business practices, business activities, and related persons.

Subsequently, in July 2007, FINRA sent us a new file containing CRD data on 5,086 broker-dealers. These data also were represented to pertain to the fourth quarter of 2006. The data include identifying and contact information, SEC-registration information, legal-status and firm-formation information, and information on business activities, as well as criminal-, regulatory-, and civil-action disclosures.

We have not been able to determine definitively why there were differences in the two data transfers. Nevertheless, the differences were rather small: Both data sets include significantly overlapping information. Identifying, registration, legal status, and business-activity information is included in both files. A total of 4,979 firms are included in both files, another 138 were included in only the file received in May, and 107 were in only the July file.

FOCUS Report Part II and Part IIA Data

In July 2007, FINRA provided us with FOCUS report data for quarterly and monthly reports from January 1999 through December 2006. The records for quarterly reports are dated March, June, September, and December. As described in Chapter Two, broker-dealers are required to file the FOCUS report either monthly or quarterly. It constitutes the basic financial and operational report required of those brokers or dealers subject to any minimum net capital requirement set forth in Rule 15c3-1 (FINRA, 2004). The report is filed with the regulatory organization designated as the examining authority for the broker or dealer.

The requirements about filing a periodic FOCUS report are articulated in SEC Rule 17a-5 (17 C.F.R. 240.17a-5), which states (in relevant part, and with emphasis provided):

a. Filing of monthly and quarterly reports.

(1) This paragraph (a) shall apply to every broker or dealer registered pursuant to section 15 of the Act.

(2) . . .

(ii) Every broker or dealer subject to this paragraph (a) who *clears transactions or carries customer accounts* shall file Part II of Form X-17A-5 within 17 business days after the end of the calendar quarter and within 17 business days after the date selected for the annual audit of financial statements where said date is other than a calendar quarter. *Certain of such brokers or dealers shall file Part IIA in lieu thereof if the nature of their business is limited* as described in the instructions to Part II of Form X-17A-5.

(iii) Every broker or dealer who *does not carry nor clear transactions nor carry customer accounts* shall file Part IIA of Form X-17A-5 within 17 business days after the end of each calendar quarter and within 17 business days after the date selected for the annual audit of financial statements where said date is other than the end of the calendar quarter.

(iv) Upon receiving written notice from the Commission or the examining authority designated pursuant to section 17(d) of the Act, *a broker or dealer who receives such notice shall file monthly,* or at such times as shall be specified, Part II or Part IIA of Form X-17A-5 and such other financial or operational information as shall be required by the Commission or the designated examining authority.

Thus, with some exceptions, the rule essentially channels clearing firms and those that carry customer accounts on their books into Part II, leaving firms that neither clear nor carry customer accounts (a category that includes many introducing brokers that originate customer contacts) to be channeled into Part IIA.[1]

As noted in Rule 17a-5 (17 C.F.R. 240.17a-5), Part II filers are generally required to file on a quarterly basis. However, Part II is filed monthly by those firms that receive written notice pursuant to Rule 17a-5(a)(2)(iv) that they have exceeded parameters set by the self-regulators. See SEC (2002).

Part IIA is also generally filed on a quarterly basis but must be filed monthly by those firms that receive written notice pursuant to Rule 17a-5(a)(2)(iv) that they have exceeded parameters set by the self-regulators.

The main sections of the FOCUS report include a statement of financial condition describing assets, liabilities, and ownership equity; computation of net capital; statement of income or loss; and computation for determination of reserve requirements. The Part II reports contain a

[1] Introducing brokers may deal directly with clients but then pass off all trades to a clearing broker-dealer who ultimately executes them. See, e.g., Rule 17a-5(c)(1)(i) (describing introducing brokers) (SEC, 2002). In some cases, a large corporate family systematically separates its introducing brokers from its clearing and carrying operations through different affiliates. For instance, Fidelity Investments has historically used a special vehicle, Fidelity Brokerage Services LLC, as an introducing broker. See Weiss (2007).

Other subsections of Rule 17a-5 and alternative industry sources appear to corroborate this description. See, e.g., Rule 17a-5(c) (exempting introducing brokers from the requirement of furnishing statements to the SEC so long as such introducing brokers do not hold funds or securities for their clients but are merely pass-through agents) (SEC, 2002); see also B/D Solutions Consulting (undated).

number of line items in these sections that are not included in the Part IIA reports. The Part II reports also contain several supplemental sections.

The FOCUS data we received include nearly all of the financial and operational information provided in the main sections of the FOCUS report. The main sections of the FOCUS report include a statement of financial condition describing assets, liabilities, and ownership equity; computation of net capital; statement of income or loss; and computation for determination of reserve requirements. We also received some supplemental information provided in Part II reports.

The data describe a total of 281,040 reports. The data set begins with 1,853 monthly filers in January 1999. The quarterly data begin with 5,482 reports in March 1999, with two of these reports labeled *M* (for monthly). The number of reports filed increased each quarter until it reached 5,639 in September 2000. The number decreases in 21 of the next 25 quarters, falling to 5,068 in December 2006.

Overall, about 18 percent of the data pertain to Part II reports (as opposed to Part IIA reports). However, Part II reports constitute a much smaller share of quarterly filings (when all firms submit reports) and a declining share from 1999 to 2006. For March 1999, almost 14 percent of the data pertain to Part II reports. The share fell below 11 percent in 2002 and stays in the range of 10.6 percent to 11.0 percent thereafter.

Identification of Firms Engaged in Dual or Affiliated Broker-Dealer and Investment Advisory Activity

Each of these databases contains information about either investment advisers (IARD data) or broker-dealers (CRD and FOCUS data). We used this information set to identify firms engaged in dual or affiliated investment advisory and broker-dealer activity. This task was facilitated by the fact that all three data sets use the same unique firm identifier, the CRD number, which can be used to match firms across data sets. All registered broker-dealers who complete a FOCUS report also complete Form BD. Dually registered broker-dealers also complete Form ADV. However, many of these dually registered firms are registered with state regulatory agencies but not the SEC, because the firm does not have assets under management of at least $25 million and does not meet any of the other eligibility criteria. As described in this section, we attempted to identify state-registered firms via the SEC's searchable, Web-based database (SEC, undated).

Identification Based on Dual Registration

We begin with a restrictive definition of dual activity, whereby firms are classified according to whether the CRD number appears in both the CRD database and the IARD database that we received. As shown in Table A.1, which focuses on the most recent data from each of the three data sets, we found 543 firms listed in both databases at the end of 2006, or about 10 percent of broker-dealers and 5 percent of investment advisers.

We know that this definition is overly restrictive, because broker-dealers may be state registered and not included in our IARD database. Soon after the first electronic filings were submitted to the IARD, the National Regulatory Services and the Investment Counsel Association of America issued the 2001 *Evolution Revolution* report (National Regulatory Services and Investment Counsel Association of America, 2001), which estimated that upward of two-

Table A.1
Dually Registered Firms, by Source of Dual-Registration Determination

				SEC Web Site Match (not IARD)		
CRD Number	All firms	CRD	IARD	SEC Registered	State Registered	Formerly SEC Registered
In CRD	5,224	5,224	543	26	336	8
In IARD	10,484	543	10,484	0	0	0

thirds of registered investment advisers were state registered. To identify broker-dealers who are state-registered investment advisers, we used Form BD information on investment advisory services to initiate searches in November 2007. As shown in Table A.1, we found 370 matches based on CRD number. Of these, 336 are state-registered firms, and another 26 are SEC registered. We also identified eight that we describe as formerly SEC registered, because the Web site entry states: "THIS INVESTMENT ADVISER IS NO LONGER REGISTERED WITH THE SEC AND IS NOT REQUIRED TO UPDATE ITS FORM ADV. THE INFORMATION SHOWN IS FOR HISTORICAL PURPOSES AND YOU SHOULD NOT PRESUME IT IS CURRENTLY ACCURATE" (SEC, undated). Using this information together with matches in our IARD database, we found that 17 percent of broker-dealers are (or were) dually registered.

We also attempted to find name and address matches for the 235 firms that reported investment advisory services on Form BD but were not matched based on CRD number. For many of these firms, we identified what seem to be affiliated investment advisors with distinct CRD numbers.

Note that, using this procedure, matching broker-dealers to state-registered advisers is possible only when the brokerage firm reports on Form BD that it is engaged in (or expects to be engaged in) business providing investment advisory services that account for at least 1 percent of revenue. If the broker-dealer does not make such a report, then no search was conducted. It is somewhat reassuring that 91 percent of IARD-database matches reported such a business activity; therefore, these omitted matches may be few in number.

We also conducted a complementary search protocol for investment advisory firms that reported, on Form ADV, being engaged in broker-dealer activity. Among the unmatched cases in the IARD data from the fourth quarter of 2006, 89 investment advisers reported being so engaged. We conducted a CRD-number broker search on the FINRA Web site and identified nine additional matched firms, each of which was classified as inactive. We also conducted a broker-name search, using firm name or contact-person name and address, and found another 36 matches to broker-dealers with distinct CRD numbers. We found possible matches for many of the remaining 44 firms that reported engagement in business as a broker-dealer on Form ADV.

Finally, we also took an alternative approach to identifying dually registered broker-dealers. Rather than matching CRD data to IARD data, we matched FOCUS data to IARD data. As is the case with the Form BD filings, FOCUS filers submit reports using the CRD number, which allows us to match up a FOCUS filing in any quarter with a corresponding Form ADV record in the IARD database.

Using this protocol yields a slightly smaller number of matched firms than that obtained by matching CRD and IARD data in the fourth quarter of 2006. In particular, we identi-

fied 536 of the 543 firms that were matched using CRD data instead. Though perhaps less inclusive, this alternative approach proves advantageous for our analysis of firms from 2001 to 2006, because we have both FOCUS data and IARD data throughout this period.

Identification Based Solely on Form ADV Data

The IARD data we received contain several variables that are indicative of some form of engagement in broker-dealer activity.

Item 6 requests information about other business activities of the advisory firm. The box for Item 6.A(1) should be checked if the firm is "actively engaged in a business as a . . . Broker-Dealer" (language from SEC, 2006). Our records indicate that this box was checked in 5.9 percent of the reports. Investment Adviser Association and National Regulatory Services (2006) used this variable to identify advisory firms that are dually registered as broker-dealers. As noted, 91 percent of CRD-IARD–matched firms checked this box, as do 89 percent of the firms that are not matched.

The box for Item 6.A(2) should be checked if the firm is "actively engaged in a business as a . . . Registered representative of a broker-dealer" (language from SEC, 2006). This box was checked in 8.9 percent of the reports. According to Investment Adviser Association and National Regulatory Services (2006), this box should be checked only if the firm is organized as a sole proprietorship, but only 3.4 percent of the firms in the database reported this form of organization. The 2006 report reaches the following conclusion based on this discrepancy: "Most of the advisers checking this response did not understand the question. It is likely that these other advisers have employees who are registered representatives of a broker-dealer" (Investment Adviser Association and National Regulatory Services, 2006, p. 19).

In fact, we conducted broker-name and -address searches on the FINRA Web site to determine the manner in which these investment advisory firms are related to broker-dealers. First, we searched for 74 sole proprietorships that reported on Form ADV that (1) they work with individual clients and (2) they are engaged in business as a registered representative of a broker-dealer. We found that 69 of these sole proprietors are registered representatives of some other firm, typically a large firm (e.g., Cambridge Investment Research, Raymond James Financial Services) with a matching business address reported on the Web site. We did not definitively identify the other five individuals.

Second, we searched for a random sample of 78 (out of 784) firms other than sole proprietorships that reported on Form ADV that (1) they work with individual clients and (2) they are engaged in business as a registered representative of a broker-dealer. The results here are strikingly similar to the results for sole proprietorships but for the fact that searches based on contact name were less successful. Rather, we often needed to conduct searches using the name of the firm's founder or other leading executive whom we found listed on the firm's Web site. In the end, we found broker-name and business-address matches for 58 (out of 78 possible) individuals working as registered representatives of some other firm with a distinct CRD number. We identified another 12 individuals working for some other firm at a different address in the same city. We did not definitively locate a broker from any of the remaining eight firms in our random sample. However, these findings indicate that, as is the case with sole proprietorships, the great majority of these 784 investment advisory firms are led by individuals engaged as broker-dealers at the same physical address.

A final source of Form ADV information on broker-dealer activity concerns activity by affiliates. Item 7 requests information about related persons, who are defined as "all of your

advisory affiliates and any *person* that is under common *control* with you" (SEC, 2006). The box for Item 7.A(1) should be checked if the firm has "a *related person* that is a . . . broker-dealer, municipal securities dealer, or government securities broker or dealer" (SEC, 2006). Our records indicate that this box was checked in almost one-quarter of the reports.

Identification Based Solely on Form BD Data

The CRD data we received contain two variables that are indicative of possible engagement in investment advisory activity. The clearest indicator comes from item 12, which requests information about all business activities of the broker-dealer other than any "category that accounts for (or is expected to account for) less than 1% of annual revenue from the securities or investment advisory business" (SEC, 2006). The category for item 12.S reads "Investment advisory services" (SEC, 2006). Our records indicate that this box was checked in more than 20 percent of the reports.

In addition, item 10.A asks: "Directly or indirectly, does *applicant control*, is *applicant controlled* by, or is *applicant* under common *control* with, any partnership, corporation, or other organization that is engaged in the securities or investment advisory business?" (SEC, 2006). Our records indicate that the "Yes" response box was checked in more than 40 percent of the reports. Note that these reported affiliations do not distinguish between investment advisory and securities affiliates. This distinction is made in explanations of responses reported in Schedule D of Form BD; however, we did not receive data describing these responses.

Identification Based Solely on FOCUS Data

The FOCUS report data contain one variable that is indicative of possible engagement in investment advisory activity. The income or loss statement includes the following line item (field 3975): "Fees for account supervision, investment advisory and administrative services" (SEC, 2002). The field 3975 instructions for Part IIA filers are as follows:

> Report fees for services to individual and corporate customers. The amount to be included as administrative services, however, shall be limited to fees charged to investment companies and periodic payment plans and other than investment advisory services. (SEC, 2002)

Part II filers are not given specific instructions for this line item.

According to a FINRA executive, fees for account supervision may include wrap fees, and fees for administrative services may include, for example, annual account fees and inactivity fees. This field may also include 12b-1 fees,[2] but such fees may instead be included in a preceding line on the FOCUS report: "Revenue from sale of investment company shares" (SEC, 2002).

According to our records, 14 percent of reports include a nonzero entry for field 3975, 22 percent are zero, and the remaining 64 percent have nothing entered. Reports of zero indicate no revenue from investment advisory services. Nonzero reports indicate that the firm may have received such revenue. It is not clear how to interpret the missing values. As noted in the analy-

[2] These 12b-1 fees are paid by mutual fund out of fund assets to cover distribution expenses and, sometimes, shareholder service expenses. They are named for the SEC rule that authorizes a fund to pay them.

sis of the FOCUS data, much revenue seems to be excluded from the itemized reports, being reported instead only in the "Total revenue" line item (field 4030) (SEC, 2002).

APPENDIX B

Other Retail Providers of Financial Services

Mutual Fund Direct Purchase

A leading investor-protection advocate argues that most small investors could act without brokers, using no-load mutual funds, and they would be better off using fee-only financial advisors (Smith, 2003). Bergstresser, Chalmers, and Tufano (2006) assessed the costs and benefits of brokers to individual investors in the mutual fund industry. They quantified the benefits investors enjoy in exchange for the higher costs they incur when buying funds through the broker channel, and they found no substantial, tangible benefits to investors. For instance, distribution fees and loads are higher for brokered funds than for direct funds. They also calculated that the underperformance (lower, risk-adjusted returns) of brokered funds implies a cost to investors of $5.5 billion per year for equity funds, $3.3 billion for bond funds, and $120 million for money-market funds. They concluded that any benefits from fund brokerage must be along less tangible dimensions, nonetheless raising the question of whether fund-distribution channels at all improve the welfare of households.[1]

According to the Investment Company Institute (2005), the share of funds acquired via professional financial advisors declined from 90 percent to 58 percent between 1970 and 2003, but they still function as the dominant channel for investors. The balance is made up of direct fund purchases, retirement-plan contributions, and discount-broker purchases. Purchases through discount brokers or "mutual fund supermarkets" have emerged as a category in 2000 that held a 7 percent share as of 2003. Direct fund purchases, while jumping from 10 percent in 1970 to 28 percent in 1980, came back to 15 percent as of 2003. Purchase behavior does not seem to vary by age, experience with mutual fund investing, or asset size. However, the extent of adviser use declines with formal education.

Services by Banks

With the passage of the Financial Modernization Act of 1999 (P.L. 106-102), banks have become more involved in the financial service industry (Al Mamun, Hassan, and Lai, 2004;

[1] They focused on the following measurable potential benefits to fund consumers: (1) assistance in selecting funds that are harder to find or evaluate, (2) access to lower-cost funds, (3) access to higher-performance funds, (4) superior asset allocation via tailoring fund choices, and (5) attenuation of behavioral investor biases. They analyzed a sample of roughly 10,400 share classes in about 4,500 funds with total assets of $3.8 trillion from 1996 to 2002 with biennial intervals. Brokered distribution is the dominant form, accounting for 66 percent of the funds and 53 percent of the assets. In terms of costs, their calculations indicate $15.2 billion in loads and 12b-1 fees (in addition to internal fund costs of $23.8 billion) in 2002.

Alexander, Jones, and Nigro, 2001). For example, banks may offer proprietary mutual funds directly to customers or proprietary funds through unaffiliated distributors. In fact, most large banks offer brokerage services (Kehrer and Houston, 2003).

Commenting on the bank acquisitions of regional brokerage firms in 2000, Kehrer (2001) noted a catalyzing factor: the downturn in the stock market that softened prices of brokerage operations to very attractive levels. However, even without the more attractive prices, acquiring a brokerage operation has many advantages. Bank-owned brokerage firms have much higher profit margins than do nonbank brokerage firms (28 percent versus 14 percent, pretax, as of 1999). A bank-owned brokerage firm has ready access to existing clients, which lowers marketing costs, and, due to easy customer access, representatives are paid less, which lowers compensation costs. Bank-owned brokerage firms also focus on higher-margin products, such as annuities and funds, as opposed to stocks and bonds. Moreover, the bank-owned brokerage firm is reported to offer a narrower product selection with less research, all of which reduces expenses. The article notes that the major contribution of a brokerage operation to a bank comes from leveraging existing sales forces, customers, and assets. Kehrer drew attention to a common model, in which the bank's own brokers focus on middle-market retail customers and the acquired brokerage firm's representatives target a more affluent clientele. While sales forces and brands might be separate, back offices are typically consolidated.

The Financial Modernization Act (P.L. 106-102) also allowed brokerage firms to do business within banks. Some recent examples illustrate the trend: A major financial holding company started putting offices of its brokerage subsidiary inside the branches of its commercial-banking subsidiary in 2006; a large financial conglomerate opened an office in New York City, combining brokerage and banking services for ultra-HNW clients in 2006; in the branches of another major national bank, the securities subsidiary of the bank has branches, but they are segregated from the teller lines. In 2005, 23 local banks around the nation signed up to have representatives of a large brokerage firm located in their branches (Pessin, 2006a).

Services by Accountants

A 2002 survey of 1,685 CPAs found that 17 percent of CPAs offered investment services to clients and that 49 percent planned to do so before 2005 (Bowen, 2002). It is not clear from the report whether such CPAs are also registered as investment advisers or are partnering with investment advisers for investment services. CPAs saw the provision of such services as a component of better client service. A definite majority, 61 percent, cited competitive pressure as a reason and perceived investment services as an opportunity to tap into a new market. The article also notes that, in "almost all surveys of wealthy investors," CPAs obtain the highest rank in terms of trust.

APPENDIX C

Attributes of Investment Advisers and Broker-Dealers

Table C.1
Attributes of Investment Advisers

Adviser Attribute	Form ADV Item	All Advisory Firms (10,484 observations) (%)	Advisory Firms with Individuals as Clients (%)			
			All (7,395 observations)	No HNW Clients (197 observations)	Only HNW Clients (1,244 observations)	Both HNW and non-HNW (5,954 observations)
Form of organization						
Corporation	3A	50.5	57.2	53.3	43.5	60.2
LLC	3A	38.1	33.7	31.5	46.7	31.0
LLP	3A	1.3	0.8	1.0	0.9	0.8
Partnership	3A	4.1	2.4	1.0	4.6	1.9
Sole proprietorship	3A	3.4	4.6	9.6	1.7	5.0
All employees						
1 to 10	5A	49.6	54.4	58.9	41.5	57.0
11 to 50	5A	19.7	19.4	10.2	21.0	19.4
51 to 100	5A	21.5	18.3	15.7	25.9	16.7
101 to 250	5A	6.5	5.3	10.2	9.6	4.2
251 to 500	5A	1.0	0.9	2.0	1.0	0.9
501 to 1,000	5A	0.7	0.7	2.0	0.6	0.7
>1,000	5A	0.9	0.9	0.5	0.4	1.1
Employees who perform investment advisory functions						
0	5B1	1.7	1.3	4.6	1.0	1.2
1 to 10	5B1	65.7	70.5	66.0	59.7	72.9
11 to 50	5B1	15.0	13.7	10.2	18.6	12.8
51 to 100	5B1	13.3	10.3	10.7	16.2	9.0
101 to 250	5B1	3.3	2.9	7.1	4.3	2.5
251 to 500	5B1	0.5	0.6	0.0	0.2	0.7

Table C.1—Continued

Adviser Attribute	Form ADV Item	All Advisory Firms (10,484 observations) (%)	Advisory Firms with Individuals as Clients (%)			
			All (7,395 observations)	No HNW Clients (197 observations)	Only HNW Clients (1,244 observations)	Both HNW and non-HNW (5,954 observations)
501 to 1,000	5B1	0.2	0.3	0.5	0.0	0.4
>1,000	5B1	0.3	0.4	0.5	0.0	0.5
Employees who are registered representatives of a broker-dealer						
0	5B2	63.9	61.9	64.0	72.0	59.8
1 to 10	5B2	22.8	23.9	19.8	17.1	25.4
11 to 50	5B2	4.9	4.9	5.1	3.6	5.1
51 to 100	5B2	5.3	5.5	5.6	5.5	5.5
101 to 250	5B2	1.9	2.3	3.6	1.4	2.4
251 to 500	5B2	0.5	0.6	1.0	0.2	0.7
501 to 1,000	5B2	0.3	0.3	0.5	0.0	0.4
>1,000	5B2	0.5	0.6	0.5	0.2	0.7
Compensation						
Assets under management	5E1	95.4	97.2	87.3	95.0	98.0
Hourly	5E2	32.8	43.6	27.9	14.0	50.3
Subscription	5E3	1.7	1.7	4.1	1.2	1.7
Fixed	5E4	40.4	49.8	42.6	32.2	53.7
Commissions	5E5	9.5	12.9	13.2	4.0	14.7
Performance	5E6	32.7	20.4	17.8	51.3	14.0
Other	5E7	9.7	8.9	12.2	9.5	8.7
Assets under management						
Supervision or management of securities portfolios	5F1	96.0	97.8	86.8	95.8	98.6
Advisory activities						
Financial planning	5G1	35.8	49.2	25.5	16.5	56.8
Portfolio management for individuals or small businesses	5G2	71.3	94.4	79.6	82.9	97.3
Portfolio management for investment companies	5G3	13.6	10.7	20.8	21.5	8.1

Table C.1—Continued

Adviser Attribute	Form ADV Item	All Advisory Firms (10,484 observations) (%)	Advisory Firms with Individuals as Clients (%)			
			All (7,395 observations)	No HNW Clients (197 observations)	Only HNW Clients (1,244 observations)	Both HNW and non-HNW (5,954 observations)
Pension consulting	5G5	15.4	18.2	23.4	10.9	19.6
Publication of periodical or newsletters	5G7	6.8	8.5	9.6	4.9	9.2
Sponsor wrap-fee program	5I1	4.4	6.0	3.6	1.8	6.9
Portfolio management for wrap-fee program	5I2	10.0	13.6	6.6	12.6	14.1
Other business activities						
Broker-dealer	6A1	5.9	7.4	11.7	3.5	8.0
Registered representative of broker-dealer	6A2	8.9	11.8	9.6	2.6	13.9
Futures-commission merchant, commodity-pool operator, or commodity-trading advisor	6A3	4.4	2.6	3.6	7.4	1.6
Real-estate broker, dealer, or agent	6A4	0.8	0.9	1.5	0.6	0.9
Insurance broker or agent	6A5	11.8	16.3	12.2	1.8	19.4
Bank	6A6	0.5	0.6	1.5	0.2	0.6
Sell products or provide services other than investment advice to advisory clients	6B3	24.4	30.3	30.5	13.9	33.7
Affiliations						
Broker-dealer, municipal-securities dealer, or government-securities broker-dealer	7A1	25.7	22.4	29.9	26.7	21.3

Table C.1—Continued

Adviser Attribute	Form ADV Item	All Advisory Firms (10,484 observations) (%)	Advisory Firms with Individuals as Clients (%)			
			All (7,395 observations)	No HNW Clients (197 observations)	Only HNW Clients (1,244 observations)	Both HNW and non-HNW (5,954 observations)
Investment company (including mutual funds)	7A2	15.2	11.2	22.4	18.6	9.3
Other investment adviser (including financial planner)	7A3	32.5	24.6	35.2	34.2	22.3
Futures-commission merchant, commodity-pool operator, or commodity-trading advisor	7A4	9.6	5.5	8.1	12.2	4.0
Banking or thrift institution	7A5	11.2	8.9	16.2	13.5	7.7
Insurance company or agency	7A8	17.2	17.4	21.3	10.9	18.6
Pension consultant	7A9	6.0	5.3	7.6	5.1	5.3
Real-estate broker or dealer	7A10	5.3	3.8	4.1	5.0	3.6
Sponsor or syndicate of limited partnership	7A11	14.3	9.5	10.7	18.6	7.5
Discretion						
Determine broker-dealer for client-account transactions	8C3	67.2	60.7	56.3	78.9	57.1
Recommend broker-dealer to clients	8D	68.1	77.7	55.3	58.8	82.3
Receive nonexecution products or services from broker-dealer	8E	59.5	59.8	43.7	62.9	59.6

Table C.1—Continued

Adviser Attribute	Form ADV Item	All Advisory Firms (10,484 observations) (%)	Advisory Firms with Individuals as Clients (%)			
			All (7,395 observations)	No HNW Clients (197 observations)	Only HNW Clients (1,244 observations)	Both HNW and non-HNW (5,954 observations)
Custody						
Related persons have custody of client cash or bank account	9B1	20.3	14.7	9.1	20.9	13.6
Related persons have custody of client securities	9B2	19.6	13.9	8.6	19.8	12.9
Related person with custody is a registered broker-dealer	9C	3.4	3.1	2.5	2.8	3.1
Registration						
SEC registered	2A1–2A11	99.0	99.1	95.4	99.4	99.1
$25 million in assets as a basis for SEC registration	2A1	87.5	92.6	66.5	87.9	94.4
Foreign registration	1L	7.7	4.8	9.7	13.0	3.0
Clientele						
Individuals: no HNW	5D1, 5D2	1.9	2.7	100.0	0.0	0.0
Individuals: only HNW	5D1, 5D2	11.9	16.8	0.0	100.0	0.0
Individuals: HNW and non-HNW	5D1, 5D2	56.8	80.5	0.0	0.0	100.0
No individuals	5D1, 5D2	29.5	0.0	0.0	0.0	0.0
Possible hedge fund						
Yes	5D6, 7B	27.4	15.9	12.2	41.2	10.8

SOURCE: IARD data from fourth quarter of 2006.

Table C.2
Attributes of Investment Advisers, by Indicators of Dual Activity

Adviser Attribute	Form ADV Item	Dually Registered (478 advisers) (%)	Reportedly Engaged as Broker-Dealer (75 advisers) (%)	Registered Representative (798 advisers) (%)	Affiliated Activity (1,051 advisers) (%)	Neither Dual nor Affiliated (4,993 advisers) (%)
Form of organization						
Corporation	3A	79.3	74.7	62.3	55.4	54.4
LLC	3A	17.6	14.7	26.7	36.5	36.0
LLP	3A	0.2	0.0	0.9	0.1	1.0
Partnership	3A	2.3	2.7	1.1	4.3	2.2
Sole proprietorship	3A	0.4	5.3	8.6	0.2	5.2
All employees						
1 to 10	5A	15.9	52.0	65.2	23.0	63.0
11 to 50	5A	11.7	14.7	21.4	16.5	20.5
51 to 100	5A	31.0	25.3	11.9	34.4	14.5
101 to 250	5A	18.8	4.0	1.4	19.4	1.7
251 to 500	5A	5.2	0.0	0.0	3.8	0.1
501 to 1,000	5A	6.1	1.3	0.1	1.7	0.1
>1,000	5A	11.3	1.3	0.0	1.1	0.0
Employees who perform investment advisory functions						
0	5B1	1.0	1.3	1.9	1.0	1.2
1 to 10	5B1	30.1	69.3	78.8	37.0	80.1
11 to 50	5B1	12.8	12.0	13.2	19.5	12.7
51 to 100	5B1	25.7	13.3	5.4	28.7	5.6
101 to 250	5B1	13.8	1.3	0.8	12.0	0.4
251 to 500	5B1	6.5	0.0	0.0	1.2	0.0
501 to 1,000	5B1	4.4	0.0	0.0	0.4	0.0
>1,000	5B1	5.6	1.3	0.0	0.2	0.0
Employees who are registered representatives of a broker-dealer						
0	5B2	0.6	5.3	2.4	21.8	86.6
1 to 10	5B2	23.4	66.7	80.8	39.2	11.0
11 to 50	5B2	12.8	12.0	10.8	12.2	1.5
51 to 100	5B2	26.4	13.3	5.4	17.7	0.8
101 to 250	5B2	17.6	1.3	0.6	7.2	0.1
251 to 500	5B2	6.5	0.0	0.0	1.1	0.0

Table C.2—Continued

Adviser Attribute	Form ADV Item	Dually Registered (478 advisers) (%)	Reportedly Engaged as Broker-Dealer (75 advisers) (%)	Registered Representative (798 advisers) (%)	Affiliated Activity (1,051 advisers) (%)	Neither Dual nor Affiliated (4,993 advisers) (%)
501 to 1,000	5B2	4.8	0.0	0.0	0.2	0.0
>1,000	5B2	7.9	1.3	0.0	0.6	0.0
Compensation						
Assets under management	5E1	97.3	96.0	97.7	97.5	97.1
Hourly	5E2	45.8	41.3	66.5	29.0	42.8
Subscription	5E3	1.0	2.7	1.8	2.4	1.6
Fixed	5E4	55.6	42.7	59.9	47.5	48.3
Commissions	5E5	50.4	36.0	47.7	9.9	4.0
Performance	5E6	12.3	25.3	8.4	38.5	19.1
Other	5E7	14.0	5.3	9.1	13.6	7.5
Assets under management						
Supervision or management of securities portfolios	5F1	96.2	97.3	98.7	97.0	98.0
Advisory activities						
Financial planning	5G1	62.1	50.0	78.8	32.9	46.7
Portfolio management for individuals or small businesses	5G2	92.1	91.9	96.6	90.9	95.1
Portfolio management for investment companies	5G3	6.7	16.0	4.5	32.1	7.5
Pension consulting	5G5	24.1	20.0	30.1	18.6	15.7
Publication of periodical or newsletters	5G7	8.6	9.3	10.5	8.8	8.1
Sponsor wrap-fee program	5I1	40.8	10.8	5.3	10.3	1.7
Portfolio management for wrap-fee program	5I2	26.8	12.2	7.9	29.8	9.9
Other business activities						
Broker-dealer	6A1	98.3	100.0	0.0	0.0	0.0

Table C.2—Continued

Adviser Attribute	Form ADV Item	Dually Registered (478 advisers) (%)	Reportedly Engaged as Broker-Dealer (75 advisers) (%)	Registered Representative (798 advisers) (%)	Affiliated Activity (1,051 advisers) (%)	Neither Dual nor Affiliated (4,993 advisers) (%)
Registered representative of broker-dealer	6A2	8.2	52.0	100.0	0.0	0.0
Futures-commission merchant, commodity-pool operator, or commodity-trading advisor	6A3	7.9	4.0	0.5	6.5	1.6
Real-estate broker, dealer, or agent	6A4	0.6	8.0	3.6	0.4	0.4
Insurance broker or agent	6A5	50.0	40.0	73.8	2.9	6.3
Bank	6A6	0.6	2.7	1.0	1.3	0.3
Sell products or provide services other than investment advice to advisory clients	6B3	73.6	48.0	66.7	24.0	21.4
Affiliations						
Broker-dealer, municipal-securities dealer, or government-securities broker-dealer	7A1	59.8	82.7	32.5	100.0	0.0
Investment company (including mutual funds)	7A2	28.0	17.6	3.8	42.2	4.2
Other investment adviser (including financial planner)	7A3	53.1	25.7	26.1	64.4	13.3
Futures-commission merchant, commodity-pool operator, or commodity-trading advisor	7A4	13.4	5.3	1.9	24.5	1.3
Banking or thrift institution	7A5	29.1	12.0	3.9	34.1	2.4

Table C.2—Continued

Adviser Attribute	Form ADV Item	Dually Registered (478 advisers) (%)	Reportedly Engaged as Broker-Dealer (75 advisers) (%)	Registered Representative (798 advisers) (%)	Affiliated Activity (1,051 advisers) (%)	Neither Dual nor Affiliated (4,993 advisers) (%)
Insurance company or agency	7A8	51.0	33.3	27.4	48.0	5.9
Pension consultant	7A9	14.2	5.3	7.4	13.8	2.3
Real-estate broker or dealer	7A10	8.8	12.0	3.9	10.8	1.8
Sponsor or syndicate of limited partnership	7A11	20.5	10.7	3.8	34.0	4.1
Discretion						
Determine broker-dealer for client-account transactions	8C3	56.7	68.0	37.1	76.0	61.6
Recommend broker-dealer to clients	8D	72.6	73.3	78.4	75.3	78.6
Receive nonexecution products or services from broker-dealer	8E	39.3	38.7	44.6	65.7	63.2
Custody						
Related persons have custody of client cash or bank account	9B1	22.6	6.7	7.5	33.8	11.3
Related persons have custody of client securities	9B2	19.9	6.7	6.6	33.6	10.5
Related person with custody is a registered broker-dealer	9C	10.3	1.3	3.9	13.8	0.0
Registration						
SEC registered	2A1–2A11	99.2	96.0	98.5	99.3	99.1
$25 million in assets as a basis for SEC registration	2A1	89.7	78.7	94.2	90.8	93.2
Foreign registration	1L	6.3	12.2	0.5	14.7	3.2

Table C.2—Continued

Adviser Attribute	Form ADV Item	Dually Registered (478 advisers) (%)	Reportedly Engaged as Broker-Dealer (75 advisers) (%)	Registered Representative (798 advisers) (%)	Affiliated Activity (1,051 advisers) (%)	Neither Dual nor Affiliated (4,993 advisers) (%)
Clientele						
Individuals: no HNW	5D1, 5D2	3.8	8.0	1.9	3.5	2.4
Individuals: only HNW	5D1, 5D2	7.1	17.3	3.5	28.0	17.5
Individuals: HNW and non-HNW	5D1, 5D2	89.1	74.7	94.6	68.5	80.1
No individuals	5D1, 5D2	0.0	0.0	0.0	0.0	0.0
Possible hedge fund						
Yes	5D6, 7B	12.6	10.7	5.3	33.7	14.3

SOURCE: IARD data are from fourth quarter of 2006. Dual registration was determined by match in IARD and CRD data.

Table C.3
Attributes of Broker-Dealers

				All Broker-Dealers with Form BD or FOCUS Report Available (%)			
Broker-Dealer Attribute	Form BD Item	FOCUS Field	All Broker-Dealers with Form BD Available (5,224 broker-dealers) (%)	Form BD and Part IIA (4,463 broker-dealers)	Form BD and Part II (544 broker-dealers)	Form BD Only (217 broker-dealers)	FOCUS Report Only (61 broker-dealers)
Form of organization							
Corporation	3A		63.0	62.9	69.7	48.4	—
LLC	3A		32.3	32.5	23.7	49.3	—
Partnership	3A		3.1	2.9	5.3	1.8	—
Sole proprietorship	3A		0.7	0.8	0.4	0.0	—
Other	3A		0.9	1.0	0.9	0.5	—
Carrying, clearing, and introducing							
Hold or maintain funds or securities or clear for another broker-dealer[a]	6		2.8	0.6	19.7	7.1	—
Refer or introduce customers to another broker-dealer[a]	7		47.3	48.4	40.6	39.3	—

Table C.3—Continued

Broker-Dealer Attribute	Form BD Item	FOCUS Field	All Broker-Dealers with Form BD Available (5,224 broker-dealers) (%)	All Broker-Dealers with Form BD or FOCUS Report Available (%)			
				Form BD and Part IIA (4,463 broker-dealers)	Form BD and Part II (544 broker-dealers)	Form BD Only (217 broker-dealers)	FOCUS Report Only (61 broker-dealers)
Customer accounts, funds, or securities held or maintained by other person, firm, or organization[a]	8C		37.9	38.6	30.9	42.0	—
FOCUS Part IIA report available		Form	85.4	100.0	0.0	0.0	100.0
FOCUS Part II report available		Form	10.4	0.0	100.0	0.0	0.0
Carry own customer accounts[b]		40, 41	6.2	0.6	52.4	0.0	—
Business activities							
Exchange member engaged in exchange commission business other than floor activities	12A		2.9	1.1	14.0	12.0	—
Exchange member engaged in floor activities	12B		5.1	2.3	25.0	13.8	—
Broker or dealer making interdealer markets in corporate securities over the counter	12C		7.4	5.6	22.6	5.5	—
Broker or dealer retailing corporate-equity securities over the counter	12D		50.2	49.0	66.0	36.4	—
Broker or dealer selling corporate-debt securities	12E		40.8	39.1	60.1	25.8	—

Table C.3—Continued

Broker-Dealer Attribute	Form BD Item	FOCUS Field	All Broker-Dealers with Form BD Available (5,224 broker-dealers) (%)	All Broker-Dealers with Form BD or FOCUS Report Available (%)			
				Form BD and Part IIA (4,463 broker-dealers)	Form BD and Part II (544 broker-dealers)	Form BD Only (217 broker-dealers)	FOCUS Report Only (61 broker-dealers)
Underwriter or selling-group participant (corporate securities other than mutual funds)	12F		23.5	21.3	45.6	15.2	—
Mutual fund underwriter or sponsor	12G		6.4	5.9	11.4	2.8	—
Mutual fund retailer	12H		52.0	54.0	44.3	29.0	—
U.S. government–securities dealer	12I.1		9.4	6.8	31.1	8.3	—
U.S. government–securities broker	12I.2		32.8	31.5	47.4	24.9	—
Municipal-securities dealer	12J		13.0	10.7	34.9	5.5	—
Municipal-securities broker	12K		34.3	33.8	45.2	18.0	—
Broker or dealer selling variable life insurance or annuities	12L		35.6	37.6	26.3	19.4	—
Solicitor of time deposits in a financial institution	12M		8.1	7.3	15.4	4.1	—
Real-estate syndicator	12N		3.4	3.7	1.5	0.9	—
Broker or dealer selling oil and gas interests	12O		6.7	7.3	3.5	3.2	—
Put-and-call broker or dealer or option writer	12P		31.1	30.5	39.2	23.5	—

Table C.3—Continued

Broker-Dealer Attribute	Form BD Item	FOCUS Field	All Broker-Dealers with Form BD Available (5,224 broker-dealers) (%)	All Broker-Dealers with Form BD or FOCUS Report Available (%)			
				Form BD and Part IIA (4,463 broker-dealers)	Form BD and Part II (544 broker-dealers)	Form BD Only (217 broker-dealers)	FOCUS Report Only (61 broker-dealers)
Selling securities of only one issuer or associate issuers (other than mutual funds)	12Q		1.4	1.4	1.7	0.9	—
Selling securities of nonprofit organizations (e.g., churches, hospitals)	12R		2.3	1.6	8.3	0.9	—
Investment advisory services	12S		21.1	20.8	27.9	8.8	—
Selling tax shelters or limited partnerships in primary distributions	12T.1		20.9	22.3	11.8	16.6	—
Selling tax shelters or limited partnerships in the secondary market	12T.2		4.5	4.1	6.6	5.5	—
Non–exchange member arranging for transactions in listed securities by member	12U		27.0	27.4	26.3	21.2	—
Trading securities for own account	12V		20.1	17.2	46.1	13.4	—
Private placements of securities	12W		49.9	50.3	46.0	52.5	—
Selling interests in mortgages or other receivables	12X		5.9	4.7	17.1	4.1	—

Table C.3—Continued

Broker-Dealer Attribute	Form BD Item	FOCUS Field	All Broker-Dealers with Form BD Available (5,224 broker-dealers) (%)	All Broker-Dealers with Form BD or FOCUS Report Available (%)			
				Form BD and Part IIA (4,463 broker-dealers)	Form BD and Part II (544 broker-dealers)	Form BD Only (217 broker-dealers)	FOCUS Report Only (61 broker-dealers)
Networking, kiosk, or similar arrangement with bank, saving bank or association, or credit union	12Y.1		5.1	4.6	10.3	1.8	—
Networking, kiosk, or similar arrangement with insurance company or agency	12Y.2		2.1	1.9	4.8	0.0	—
Affiliations							
Control, controlled by, or under common control with another engaged in securities or investment advisory business[a]	10A		41.3	37.7	69.3	49.1	—
Control, controlled by, or under common control with bank[a]	10B		7.7	5.1	28.7	9.8	—
Registration							
Registered as broker-dealer under §15(b)[c]	2A		96.9	96.8	97.8	96.3	—
Registered under §15(b) and government-securities broker[c]	2B		0.2	0.0	0.4	4.0	—
Registered solely as government-securities broker under §15(c)[d]	2C		34.8	32.8	54.3	22.7	—

Table C.3—Continued

SOURCE: Part II, Part IIA, and carrying or clearing data are from FOCUS reports from fourth quarter of 2006. All other attributes are from CRD from the fourth quarter of 2006.

[a] Data available for 5,117 broker-dealers.

[b] Data available for 5,068 broker-dealers.

[c] This refers to §15(b) of the Securities Exchange Act of 1934 (48 Stat. 881), which deals with municipal securities.

[d] This refers to §15(c) of the Securities Exchange Act of 1934 (48 Stat. 881), which deals with government-securities brokers and dealers.

Table C.4
Summary Statistics for FOCUS Filers

		All Filers ($ thousands)		Part II Filers ($ thousands)		Part IIA Filers ($ thousands)	
Characteristic	Reporting	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Total population of firms	5,068	5,068	—	544	—	4,524	—
Assets							
Cash	5,068	4,917	81,900	37,900	247,000	956	5,359
Total assets	5,068	1,080,000	16,800,000	9,880,000	50,500,000	24,300	412,000
Ownership equity							
Sole-proprietor equity	297	172	832	27	170	262	1,040
Partnership: limited-partnership equity	1,432	21,300	190,000	89,200	397,000	11,100	132,000
Total corporate equity	5,068	26,500	319,000	216,000	944,000	3,680	45,800
Total ownership equity	5,068	32,500	334,000	246,000	966,000	6,736	82,900
Commissions							
On exchange transactions	1,915	2,281	16,300	11,600	39,100	595	4,189
On OTC transactions	229	2,900	8,874	3,074	9,109	—	—
On listed options	1,150	462	2,825	1,834	5,745	154	1,368
On all other securities	2,413	2,507	12,300	10,200	27,600	1,236	6,273
Total commissions	5,068	2,337	18,200	15,000	51,800	810	5,400

Table C.4—Continued

Characteristic	Reporting	All Filers ($ thousands)		Part II Filers ($ thousands)		Part IIA Filers ($ thousands)	
		Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Other revenues							
Fees from account supervision or investment advisory and administrative services	1,349	5,678	41,300	24,500	95,400	1,852	11,000
Revenue from research services	134	506	4,352	560	4,578	—	—
Total revenue	5,068	23,000	307,000	183,000	919,000	3,738	21,800
Expenses							
Clerical or administrative employees' expenses	439	22,400	109,000	23,000	110,000	—	—
Registered representative's compensation	424	22,400	86,400	23,100	87,600	—	—
Salaries and other employment costs for general partners and voting stockholder officers	2,050	493	3,246	1,368	5,824	387	2,761
Total expenses	5,068	20,700	281,000	166,000	844,000	3,240	18,600
Income							
Income before federal taxes	5,068	2,214	30,000	16,500	87,600	498	7,570
Income after federal income tax and extraordinary items	5,068	1,811	23,500	12,800	67,600	490	7,394
Monthly income	5,068	697	11,400	5,235	33,300	151	3,042
Reserve requirements							
Total credits	557	875,000	5,830,000	896,000	5,900,000	—	—
Aggregate debit items	557	618,000	4,200,000	633,000	4,250,000	—	—
Total §15(c)(c)(3) debits[a]	557	599,000	4,070,000	614,000	4,120,000	—	—

Table C.4—Continued

SOURCE: Financial data are from FOCUS reports for the fourth quarter of 2006. All other attributes are from CRD data for the same quarter.

[a] This refers to §15(c)(c)(3) of the Securities Exchange Act of 1934 (48 Stat. 881), which deals with certain sanctions for violations for not registering as a government-securities broker when needed.

Table C.5
Probit Analysis of Criminal, SEC, Other Regulatory, SRO, Civil, or Pending Legal Enforcement

	Coefficient					
Characteristic	**Criminal**	**SEC**	**Other Regulatory**	**SRO**	**Civil**	**Pending**
Part II	0.42563	0.2614	0.19432	0.13593	0.4844	0.44295
	0.001	*0.001*	*0.005*	*0.062*	*0*	*0*
Total revenues	1.4E-09	1.2E-09	–3E-10	1.8E-08	2.5E-09	–7E-10
	0.524	*0.663*	*0.906*	*0.006*	*0.286*	*0.699*
Total expenses	–1E-09	1.2E-08	1.6E-08	1.1E-09	–2E-09	1.5E-09
	0.579	*0*	*0*	*0.879*	*0.506*	*0.458*
Firm age	–0.0102	0.01815	0.01986	0.02629	0.01103	0.00179
	0.026	*0*	*0*	*0*	*0*	*0.457*
Cash	–1E-09	3.8E-09	–6E-10	2.2E-08	5.5E-09	–2E-10
	0.273	*0.026*	*0.725*	*0*	*0*	*0.644*
Total assets	1.8E-12	–9E-12	–8E-12	1.7E-11	3.7E-12	–4E-12
	0.731	*0.024*	*0.033*	*0.498*	*0.324*	*0.235*
Exchange member, nonfloor activities	–0.0835	0.33866	0.12909	0.114	0.19765	0.37109
	0.747	*0.009*	*0.283*	*0.392*	*0.217*	*0.008*
Exchange member, floor activities	0.3923	0.21523	–0.0028	0.48125	–0.083	0.04805
	0.175	*0.228*	*0.987*	*0.013*	*0.694*	*0.795*
Interdealer market maker	0.34121	0.17186	0.35998	0.66738	0.02669	0.29112
	0.028	*0.067*	*0*	*0*	*0.828*	*0.003*

Table C.5—Continued

	Coefficient					
Characteristic	**Criminal**	**SEC**	**Other Regulatory**	**SRO**	**Civil**	**Pending**
Retailing corporate securities over the counter	–0.1823	–0.103	0.34677	0.60536	–0.2552	–0.1723
	0.144	*0.105*	*0*	*0*	*0.002*	*0.023*
Non–exchange member arranging transactions	0.05137	0.0836	0.03784	–0.0237	0.1469	0.23704
	0.697	*0.216*	*0.472*	*0.647*	*0.098*	*0.002*
Investment advisory services	0.21673	0.00027	0.18996	0.05293	0.2151	0.14369
	0.06	*0.997*	*0*	*0.29*	*0.006*	*0.042*
Constant	–2.1327	–1.6546	–1.2963	–1.0719	–1.9697	–1.7084
	0	*0*	*0*	*0*	*0*	*0*
N	4,931	4,931	4,931	4,931	4,931	4,931
Log likelihood	–366.64	–1,510.6	–2,523.9	–2,789	–845.33	–1,098.4
Pseudo r-squared	0.066	0.1726	0.1309	0.1713	0.135	0.0643

SOURCE: Financial data are from FOCUS reports from the fourth quarter of 2006. All other attributes are from CRD for the same quarter.

NOTE: Coefficient estimates in shaded cells are statistically different from 0 at the 5 percent significance level. Numbers in italics are p-values.

Table C.6
Attributes of Broker-Dealers, by Indicators of Dual Activity

Broker-Dealer Attribute	Form BD Item	FOCUS Field	Dually Registered (Database Match) (543 broker-dealers) (%)	Dually Registered (Web-Site Match) (370 broker-dealers) (%)	Reportedly Engaged as Investment Adviser (235 broker-dealers) (%)	Affiliated Activity (1,656 broker-dealers) (%)	Neither Dual Nor Affiliated Activity (2,420 broker-dealers) (%)
Form of organization							
Corporation	3A		78.5	78.4	74.9	58.3	59.2
LLC	3A		18.0	17.3	19.1	36.4	36.3
Partnership	3A		2.8	2.2	2.1	4.1	2.7
Sole proprietorship	3A		0.2	1.6	3.4	0.0	0.9
Other	3A		0.6	0.5	0.4	1.2	1.0
Carrying, clearing, and introducing							
Hold or maintain funds or securities or clear for another broker-dealer[a]	6		9.4	2.5	0.9	3.9	0.6
Refer or introduce customers to another broker-dealer[a]	7		68.5	73.2	56.5	46.0	38.3
Customer accounts, funds, or securities held or maintained by another person, firm, or organization[a]	8C		59.1	62.0	47.0	36.8	28.9
FOCUS Part IIA report available		Form	75.3	92.4	91.5	81.5	88.8
FOCUS Part II report available		Form	23.4	5.1	6.4	15.8	5.0
Carry own customer accounts[b]		40, 41	15.5	2.5	5.2	8.4	3.2
Business activities							
Exchange member engaged in exchange commission business other than floor activities	12A		6.8	1.1	0.4	3.8	1.9

Table C.6—Continued

Broker-Dealer Attribute	Form BD Item	FOCUS Field	Dually Registered (Database Match) (543 broker-dealers) (%)	Dually Registered (Web-Site Match) (370 broker-dealers) (%)	Reportedly Engaged as Investment Adviser (235 broker-dealers) (%)	Affiliated Activity (1,656 broker-dealers) (%)	Neither Dual Nor Affiliated Activity (2,420 broker-dealers) (%)
Exchange member engaged in floor activities	12B		14.2	3.5	1.7	6.0	3.1
Broker or dealer making interdealer markets in corporate securities over the counter	12C		14.5	9.5	10.6	7.5	5.0
Broker or dealer retailing corporate-equity securities over the counter	12D		78.1	81.6	64.7	47.3	39.7
Broker or dealer selling corporate-debt securities	12E		70.0	71.4	55.3	39.2	29.2
Underwriter or selling-group participant (corporate securities other than mutual funds)	12F		37.8	35.4	37.0	23.0	17.6
Mutual fund underwriter or sponsor	12G		12.9	1.1	7.7	13.4	0.7
Mutual fund retailer	12H		81.4	91.6	66.8	47.9	40.6
U.S. government–securities dealer	12I.1		23.8	13.8	16.6	8.6	5.4
U.S. government–securities broker	12I.2		61.0	61.4	49.4	32.1	21.1
Municipal-securities dealer	12J		32.4	21.6	22.6	10.3	8.3
Municipal-securities broker	12K		72.9	70.3	52.3	29.3	21.9

Table C.6—Continued

Broker-Dealer Attribute	Form BD Item	FOCUS Field	Dually Registered (Database Match) (543 broker-dealers) (%)	Dually Registered (Web-Site Match) (370 broker-dealers) (%)	Reportedly Engaged as Investment Adviser (235 broker-dealers) (%)	Affiliated Activity (1,656 broker-dealers) (%)	Neither Dual Nor Affiliated Activity (2,420 broker-dealers) (%)
Broker or dealer selling variable life insurance or annuities	12L		70.9	78.6	48.5	32.5	22.0
Solicitor of time deposits in a financial institution	12M		22.7	21.4	14.5	6.2	3.4
Real-estate syndicator	12N		4.1	5.1	3.8	2.2	3.8
Broker or dealer selling oil and gas interests	12O		14.2	9.5	8.1	4.7	5.9
Put-and-call broker or dealer or option writer	12P		56.2	55.7	41.3	27.9	22.9
Selling securities of only one issuer or associate issuers (other than mutual funds)	12Q		1.1	1.1	0.9	2.0	1.2
Selling securities of nonprofit organizations (e.g., churches, hospitals)	12R		7.4	4.1	5.1	1.3	1.2
Investment advisory services	12S		91.3	100.0	100.0	0.0	0.0
Selling tax shelters or limited partnerships in primary distributions	12T.1		33.3	30.0	23.8	17.1	19.1
Selling tax shelters or limited partnerships in the secondary market	12T.2		14.2	9.2	6.0	2.8	2.6

Table C.6—Continued

Broker-Dealer Attribute	Form BD Item	FOCUS Field	Dually Registered (Database Match) (543 broker-dealers) (%)	Dually Registered (Web-Site Match) (370 broker-dealers) (%)	Reportedly Engaged as Investment Adviser (235 broker-dealers) (%)	Affiliated Activity (1,656 broker-dealers) (%)	Neither Dual Nor Affiliated Activity (2,420 broker-dealers) (%)
Non–exchange member arranging for transactions in listed securities by member	12U		33.5	40.0	33.6	29.6	21.2
Trading securities for own account	12V		32.0	22.2	25.5	22.3	15.0
Private placements of securities	12W		47.0	42.2	57.4	45.8	53.9
Selling interests in mortgages or other receivables	12X		15.3	9.7	8.9	5.7	3.1
Networking, kiosk, or similar arrangement with bank, saving bank or association, or credit union	12Y.1		19.2	15.7	6.0	3.5	1.3
Networking, kiosk, or similar arrangement with insurance company or agency	12Y.2		9.9	4.3	3.0	1.4	0.3
Affiliations							
Control, controlled by, or under common control with another engaged in securities or investment advisory business[a]	10A		54.0	17.2	43.1	100.0	0.0
Control, controlled by, or under common control with bank[a]	10B		16.2	9.8	8.6	12.6	1.8
Registration							
Registered as broker-dealer under §15(b)	2A		99.3	97.8	94.5	97.1	96.2

Table C.6—Continued

Broker-Dealer Attribute	Form BD Item	FOCUS Field	Dually Registered (Database Match) (543 broker-dealers) (%)	Dually Registered (Web-Site Match) (370 broker-dealers) (%)	Reportedly Engaged as Investment Adviser (235 broker-dealers) (%)	Affiliated Activity (1,656 broker-dealers) (%)	Neither Dual Nor Affiliated Activity (2,420 broker-dealers) (%)
Registered under §15(b) and government-securities broker	2B		0.0	0.0	0.0	0.4	0.0
Registered solely as government-securities broker under §15(c)	2C		66.1	61.5	50.9	34.1	22.5

SOURCES: Part II, Part IIA, and carrying or clearing data are from FOCUS reports from the fourth quarter of 2006. All other attributes are from CRD for the same quarter. Database-matched dual registrations are determined from match in IARD and CRD data. Web-based dual registrations are determined from match in SEC Web site and CRD data.

[a] Data are available for 5,117 broker-dealers.

[b] Data are available for 5,068 broker-dealers.

APPENDIX D

Additional Detail on Sampling Method of Document Collection

Document Collection and Review

We originally set a target of 75 firms from which to collect and examine business documents. We designed a sampling scheme to achieve a balance between broker-dealers and investment advisers. We oversampled the largest firms that dominate the market with respect to total accounts and account holdings, but we also sought to include a sufficient number of broker-dealers and investment advisers randomly sampled from the thousands of other firms of each type.

The documents we sought were marketing and sales documents (e.g., brochures, flyers) advertising the firm itself, its range of services, or individual products; regulatory documents (e.g., disclosure statements, disclaimers) required by federal and state regulators and SROs; account-based documents (e.g., application forms, account agreements, transaction confirmations, account statements); and interfirm agreements and contracts among investment advisers, broker-dealers, and other financial institutions, such as mutual fund managers.

Sampling Methods

In June 2007, we used the available administrative data to select a stratified sample of investment advisers and broker-dealers for solicitation of business documents. Our selection process for the recipient firms followed a two-step procedure. First, we stratified based on whether the firm is registered as an investment adviser or as a broker-dealer. Note that the dually registered firms with individual advisory clients are listed in both databases.

Second, we chose to oversample from among the more dominant firms in the market. At the time of sample selection, we did not yet have data on total capitalization from the FOCUS reports. However, the *Expanded Securities Industry DataBank* (see SIFMA, undated[a]) includes a quarterly report of the largest 25 brokerage firms, ostensibly based on net capitalization as measured in the FOCUS report. We used these rankings to identify the registered broker-dealers that appear in the list any time from the fourth quarter of 2001 through the fourth quarter of 2006 and selected those that were included in the CRD database in the fourth quarter of 2006. We used an analogous procedure for investment advisers. In particular, we drew on the IARD data to identify the top 25 firms each quarter according to assets under management, on a quarterly basis, since 2001. These large firms were sampled with probability 1. To reach the target of 75 total firms, accounting for potential nonresponse and ineligibility, the remaining firms in each database were sampled at a rate of almost 1 percent, yielding a sample

size of 164. This total includes two large, dually registered firms included in both the sample of investment advisers and the sample of broker-dealers.

Request Letters

A copy of the document-request letter sent to advisory firms is included in Figure D.1. Cover letters sent to brokerage firms were the same, except that the first sentence in the second paragraph read: "As a part of the effort to assess current practices in the industry we would like to collect and examine business documents used in conjunction with your retail *brokerage* services" (emphasis added). Figures D.2 and D.3 are sample checklists that were included in document requests to investment advisory firms and brokerage firms, respectively.

The principal investigator sent the letters via Federal Express to individual contact persons whose names were provided by FINRA (registered broker-dealers) or included in the IARD database (investment advisers). The principal investigator and RAND survey staff made more than 300 follow-up phone calls. Additional calls were also made both to solicit participation in the firm interviews and to prompt nonrespondents to submit business documents. Multiple email messages were also sent to most firms to remind them about the study and notify them of forthcoming contact attempts.

In addition, a second Federal Express package was sent to 47 nonresponding firms and 27 firms that were classified as giving a soft refusal.[1] This follow-up package included prepaid Federal Express return packaging accompanied by a letter from the office of the SEC chair, stressing the importance of participating in the study, as well as a new document-request letter from the principal investigator of the study that included this supplemental statement: "We understand that not all firms will have all of the items on this list, but we would appreciate you sending us what materials you have, even if this is just a new client package."

Follow-up telephone discussions and messages also included scaled-back requests of this type. These contact attempts were discontinued 12 weeks after the first letters were sent.

Response Rate

Despite our numerous attempts via multiple contact methods to recruit these firms to participate in this study, we received documents from only 29 sampled firms deemed eligible to participate in the study, and most of these submissions complied only partially with our requests. Initially, we received documents from 33 firms. However, four of these firms do not work directly with individual U.S. investors and were therefore not eligible for the study. The 29 eligible firms include 18 from the sample of investment advisers and 11 from the sample of broker-dealers. (Two firms were included in both samples.)

This limited participation greatly limits our ability to extrapolate findings from the submitted sample of documents. To supplement the documentary evidence, we conducted thorough reviews of the Web sites maintained by these 29 responding firms as well as another 34 sampled firms that both maintain a public Web site and were deemed eligible to participate in the study. Almost all of the remaining firms from the original list of 164 do not maintain public Web sites or were determined to be ineligible for the study because they do not work directly with individual investors or are no longer in business as registered in the fourth quarter of 2006.

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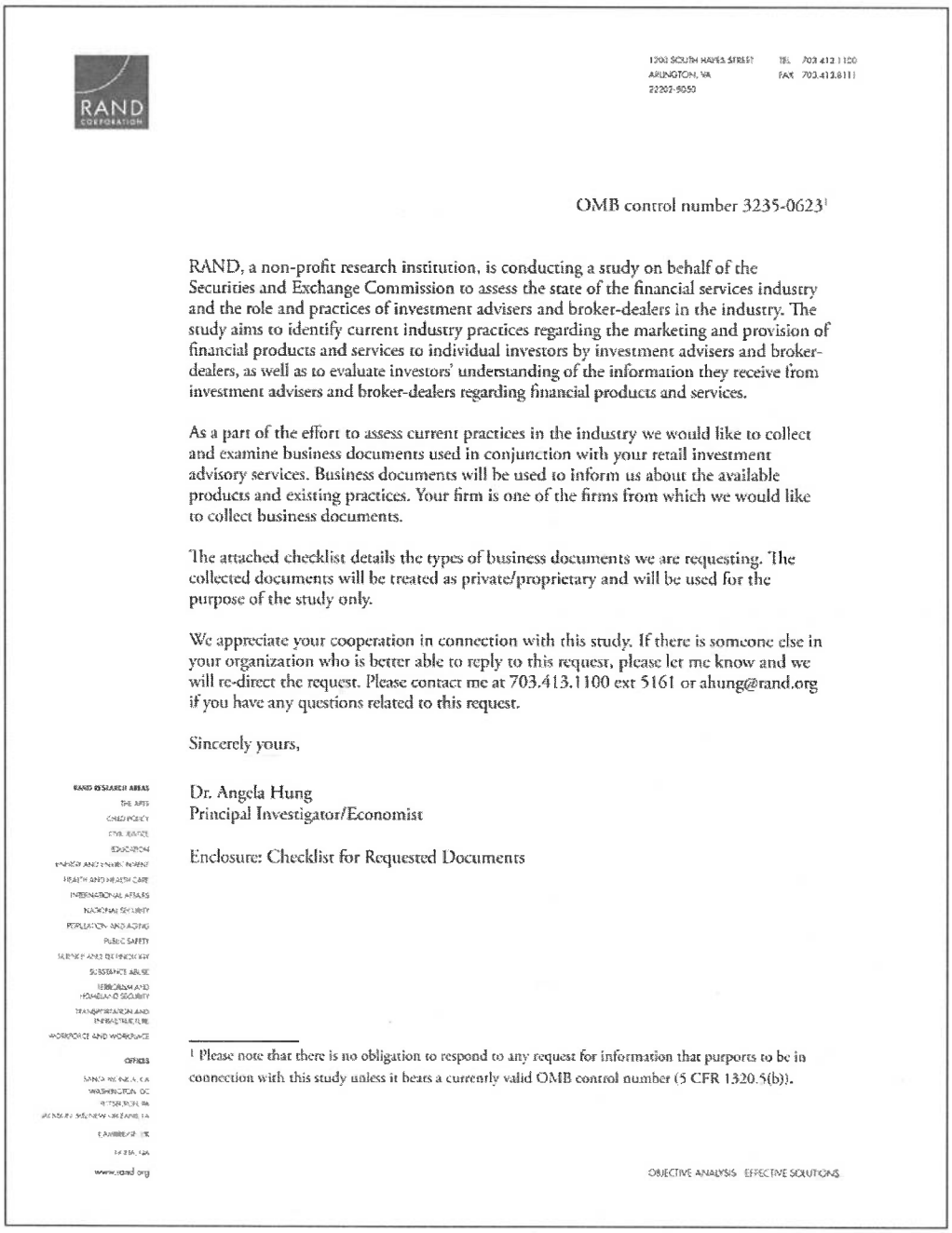
[1] We characterized a refusal as soft if the respondent refused but did not give a concrete reason for refusal and did not express adamant refusal.

Figure D.1
Sample Cover Letter Sent to Investment Advisory Firms for Business-Document Collection



RAND CORPORATION

1200 SOUTH HAYES STREET
ARLINGTON, VA
22202-5050

TEL 703.413.1100
FAX 703.413.8111

OMB control number 3235-0623[1]

RAND, a non-profit research institution, is conducting a study on behalf of the Securities and Exchange Commission to assess the state of the financial services industry and the role and practices of investment advisers and broker-dealers in the industry. The study aims to identify current industry practices regarding the marketing and provision of financial products and services to individual investors by investment advisers and broker-dealers, as well as to evaluate investors' understanding of the information they receive from investment advisers and broker-dealers regarding financial products and services.

As a part of the effort to assess current practices in the industry we would like to collect and examine business documents used in conjunction with your retail investment advisory services. Business documents will be used to inform us about the available products and existing practices. Your firm is one of the firms from which we would like to collect business documents.

The attached checklist details the types of business documents we are requesting. The collected documents will be treated as private/proprietary and will be used for the purpose of the study only.

We appreciate your cooperation in connection with this study. If there is someone else in your organization who is better able to reply to this request, please let me know and we will re-direct the request. Please contact me at 703.413.1100 ext 5161 or ahung@rand.org if you have any questions related to this request.

Sincerely yours,

Dr. Angela Hung
Principal Investigator/Economist

Enclosure: Checklist for Requested Documents

RAND RESEARCH AREAS
THE ARTS
CHILD POLICY
CIVIL JUSTICE
EDUCATION
ENERGY AND ENVIRONMENT
HEALTH AND HEALTH CARE
INTERNATIONAL AFFAIRS
NATIONAL SECURITY
POPULATION AND AGING
PUBLIC SAFETY
SCIENCE AND TECHNOLOGY
SUBSTANCE ABUSE
TERRORISM AND HOMELAND SECURITY
TRANSPORTATION AND INFRASTRUCTURE
WORKFORCE AND WORKPLACE

OFFICES
SANTA MONICA, CA
WASHINGTON, DC
PITTSBURGH, PA
JERSEY CITY, NEW ORLEANS, LA
CAMBRIDGE, UK
DOHA, QATAR

www.rand.org

[1] Please note that there is no obligation to respond to any request for information that purports to be in connection with this study unless it bears a currently valid OMB control number (5 CFR 1320.5(b)).

OBJECTIVE ANALYSIS. EFFECTIVE SOLUTIONS.

RAND *TR556-D.1*

Among the 131 firms that did not send documents, 48 firms refused to participate, 21 firms never responded to numerous contact efforts, nine firms were determined to be no longer in business and thus ineligible, and an additional 53 firms were labeled as ineligible because they do not work directly with individual U.S. investors. We discovered that these firms were ineligible via follow-up calls and by examining firm Web sites.

Figure D.2
Sample Checklist Enclosed in Investment Advisory Document-Request Letter

OMB control number 3235-0623[1]

The RAND Corporation Study: Checklist for Requested Documents

Name of Firm: _____ **Contact Person:** _____

Firm Address: _____ **Phone Number:** _____

_____ **Email:** _____

_____

	Included in package	Item does not exist	If item exists, but it is not included in package, please provide reason.
General marketing brochures for your firm	☐	☐	
Brochures for **investment advisory** services and products	☐	☐	
Print advertisements in media	☐	☐	
Video recordings of television advertisements	☐	☐	
Examples of business cards for registered **investment advisers**	☐	☐	
Examples of business cards for any other person at the firm who comes into direct contact with individual investors	☐	☐	
Pricing schedules (fees, commissions, minimums, various charges)	☐	☐	
Disclosure statements, disclaimers and prospectuses that are typically provided to **investment advisory** clients	☐	☐	
Account application form	☐	☐	
Account agreement	☐	☐	
Sample account statement for **advisory** clients	☐	☐	
Sample trade confirmation forms	☐	☐	
Sample bills or invoices to clients	☐	☐	
Contracts or agreements between your firm and other financial service providers such as mutual fund companies or **brokerage firms**	☐	☐	
Examples of contracts or agreements between your firm and affiliated firms	☐	☐	
Examples of contracts or agreements between your firm and affiliated independent professionals.	☐	☐	
Examples of contracts or agreements between your firm and employed investment professionals	☐	☐	
Supervisory and compliance manuals	☐	☐	
Training material for associated persons of **investment advisers** relating to the marketing, sale and delivery of financial products, accounts, programs and services to individual investors	☐	☐	

[1] Please note that there is no obligation to respond to any request for information that purports to be in connection with this study unless it bears a currently valid OMB control number (5 CFR 1320.5(b)).

RAND *TR556-D.2*

Among the 57 total ineligible firms deemed ineligible because they do not directly work with individual investors,[2] 26 are investment advisers and had reported on Form ADV that

[2] Recall that four firms that sent documents and 53 firms that did not send documents were deemed ineligible because they do not work with individual clients, giving us a total of 57 firms that were deemed ineligible on the basis of not work-

Figure D.3
Sample Checklist Enclosed in Broker-Dealer Document-Request Letter

OMB control number 3235-0623[1]

The RAND Corporation Study: Checklist for Requested Documents

Name of Firm: _____ **Contact Person:** _____

Firm Address: _____ **Phone Number:** _____

_____ **Email:** _____

_____

	Included in package	Item does not exist	If item exists, but it is not included in package, please provide reason.
General marketing brochures for your firm	☐	☐	
Brochures for **brokerage** services and products	☐	☐	
Print advertisements in media	☐	☐	
Video recordings of television advertisements	☐	☐	
Examples of business cards for registered representatives.	☐	☐	
Examples of business cards for any other person at the firm who comes into direct contact with individual investors	☐	☐	
Pricing schedules (fees, commissions, minimums, various charges)	☐	☐	
Disclosure statements, disclaimers and prospectuses that are typically provided to **brokerage** clients	☐	☐	
Account application form	☐	☐	
Account agreement	☐	☐	
Sample account statement for **brokerage** clients	☐	☐	
Sample trade confirmation forms	☐	☐	
Sample bills or invoices to clients	☐	☐	
Contracts or agreements between your firm and other financial service providers such as mutual fund companies or **investment adviser firms**	☐	☐	
Examples of contracts or agreements between your firm and affiliated firms	☐	☐	
Examples of contracts or agreements between your firm and affiliated independent professionals.	☐	☐	
Examples of contracts or agreements between your firm and employed investment professionals	☐	☐	
Supervisory and compliance manuals	☐	☐	
Training material for associated persons of **broker dealers** relating to the marketing, sale and delivery of financial products, accounts, programs and services to individual investors	☐	☐	

[1] Please note that there is no obligation to respond to any request for information that purports to be in connection with this study unless it bears a currently valid OMB control number (5 CFR 1320.5(b)).

RAND *TR556-D.3*

individuals are among their clientele. Follow-up phone calls to these firms revealed that any work with individual investors occurs either indirectly (e.g., investors purchase the funds that they manage) or is restricted to extremely wealthy individuals who are institutional in size.

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ing with individual clients.

After excluding the total of 66 ineligible firms,[3] the mailed-document response rate is just 29/98. However, when supplemented with Web-data collection from another 34 firms, the effective response rate is 64 percent.

Nonresponding or Ineligible Firms

Among the 131 firms that did not send documents, 48 firms refused to participate, 21 firms never responded to numerous contact efforts, nine firms were determined to be no longer in business and thus ineligible, and an additional 53 firms were labeled as ineligible because they do not work directly with individual U.S. investors. We discovered that these firms were ineligible via follow-up calls and by examining firm Web sites.

Among the 57 total ineligible firms deemed ineligible because they do not directly work with individual investors,[4] 26 are investment advisers and had reported on Form ADV that individuals are among their clientele. Follow-up phone calls to these firms revealed that any work with individual investors occurs either indirectly (e.g., investors purchase the funds that they manage) or is restricted to extremely wealthy individuals who are institutional in size.

Types of Documents Received

The 29 eligible firms that complied with the request submitted documents varying in number, size, range of topics covered, and complexity. All documents were reviewed by RAND staff members who completed a document-collection data form for each firm. Data were recorded for the following topics: documents returned, company background, clients, services and products, disclosures, affiliations, online accounts, modes of access, fees and commissions, account and product specifications, employees, and marketing material. The data form concludes with a section in which other important or clarifying text may be added.

As described in Table D.1, we received 158 sets of documents corresponding to the document categories we requested. Multiple documents were included in most sets. Every individual document in every set was reviewed for data extraction and further analysis. Firms that offer more than one product and service could submit marketing and sales documents and account-based documents separately for each product or service. For instance, one large firm made an electronic submission that included almost 100 separate brochures, 34 print advertisements, and 16 different disclosure documents. Another large firm also submitted hundreds of electronic documents.

About half the firms submitted such documents as account-application forms and agreements, pricing schedules, disclosure statements, and examples of business cards for investment professionals. Broker-dealers in our sample were more likely to send marketing and sales documents. Investment advisers were more likely to submit samples of account-based documents.

The submitted packages varied significantly in the number and size of the documents. Large firms tended to make the most voluminous submissions. Smaller companies often submitted fewer than ten documents.

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[3] The final tally of ineligible firms consists of 57 firms that do not work with individual clients and nine firms that no longer exist.

[4] Recall that four firms that sent documents and 53 firms that did not send documents were deemed ineligible as they do not work with individual clients, giving us a total of 57 firms that were deemed ineligible on the basis of not working with individual clients.

Table D.1
Types of Documents Submitted

Document Type	Investment Advisory Firms Submitting	Brokerage Firms Submitting
Any	18	11
General marketing brochures	5	8
Brochures for specific products	5	7
Print ads in media	1	4
Video recordings of TV ads	1	4
Examples of business cards for investment professionals	8	7
Examples of business cards for other personnel	2	6
Pricing schedules	9	7
Disclosure statements	8	8
Account-application form	4	6
Account agreement	10	7
Sample account statement	8	7
Sample trade-confirmation forms	5	7
Sample bills or invoices to clients	7	3
Contracts or agreements between firm and other parties	0	5
Examples of contracts or agreements between firm and affiliated firms	1	5
Examples of contracts or agreements between firm and affiliated independent professionals	2	5
Supervisory and compliance manuals	3	4
Training materials	1	5

Web-Site Document Collection

As previously mentioned, we supplemented the mailed-document collection efforts by recording publicly available information from firm Web sites. Web-data collection was attempted for 80 firms from the original sample, including the 33 firms that submitted documents and 47 firms that did not. In total, Web sites were found for 73 firms, but 12 of these firms were deemed to be ineligible because they do not work with individual investors. Of the 33 firms that submitted documents, four firms do not work with individual investors, and two did not maintain a Web site. Of the 47 firms that did not submit documents, five did not maintain Web sites, and eight were ineligible for the study (seven firms do not work with individual investors and one firm no longer exists). The 61 eligible firms with Web sites include 36 from the sample of investment advisers and 25 from the sample of broker-dealers. We reviewed

approximately 1,000 pages on these Web sites and recorded data using a nearly identical protocol to that used for the business documents submitted by mail.

Representativeness of the Sample

The breakdown of firms from which we collected data, either from submitted documents or from Web sites, is presented in Table D.2.

Although our sampling scheme was designed to select a sample that is representative of the population of brokerage and investment advisory firms conditional on the stratification variables (investment adviser or broker-dealer, large or other), with such a small number of total firms, random sampling within strata can yield a sample that does not appear to be representative. Standard statistical tests indicate that our random samples of (not large) broker-dealers and investment advisers would appear to be representative of the larger population if analyzed by a researcher who was unaware of the actual sampling process.

Of more concern may be the effects of the stratification based on firm size with respect to dual registration. All of the large brokerage firms in our sample are registered with the SEC as investment advisers, whereas only about 10 percent of the broker-dealer population is SEC registered as an investment adviser. Further, 20 percent of the large investment advisory firms in our sample are registered broker-dealers and included in our CRD database. This latter share is more comparable to, but still much greater than, the 6 percent of all investment advisory firms that are dually registered in the CRD.

Finally, when the response rate is relatively low, one must be cautious before extrapolating from sample statistics to the population from which it was drawn. We therefore focus more attention on what we can learn about the firms on which we obtained information, noting that these firms cover a wide range of the attributes described with the population data analyzed in Chapter Four.

Table D.2
Eligible Firms with Submitted or Web Document Data

Firm Type	Large Firms	Other Firms
Investment adviser	10	28
Broker-dealer	13	12

APPENDIX E

Disclosures by Type and Information Source

Table E.1
Disclosure by Type and Source

	Broker-Dealers			Investment Advisers		
Type of Disclosure	**All**	**Large**	**Other**	**All**	**Large**	**Other**
Total	25	13	12	38	10	28
Disclosure types that appear in the general marketing brochure						
Differences between investment advisers and broker-dealers	5	5	0	2	2	0
Conflicts of interest	2	2	0	3	2	1
Compensation structure	3	2	1	3	2	1
Code of ethics or fiduciary oath	2	2	0	2	1	1
Client duties and responsibilities	1	1	0	1	1	0
Client rights	2	2	0	2	2	0
Future performance	5	5	0	2	1	1
Disclosure types that appear in the product brochure						
Differences between investment advisers and broker-dealers	5	5	0	1	1	0
Conflicts of interest	6	6	0	1	1	0
Compensation structure	7	7	0	2	1	1
Code of ethics or fiduciary oath	4	4	0	2	2	0
Client duties and responsibilities	5	5	0	2	2	0
Client rights	3	3	0	3	3	0
Future performance	5	5	0	1	1	0
Disclosure types that appear in the print advertisement						
Differences between investment advisers and broker-dealers	2	2	0	0	0	0
Conflicts of interest	0	0	0	0	0	0
Compensation structure	0	0	0	0	0	0

Table E.1—Continued

	Broker-Dealers			Investment Advisers		
Type of Disclosure	**All**	**Large**	**Other**	**All**	**Large**	**Other**
Code of ethics or fiduciary oath	7	7	0	7	3	4
Client duties and responsibilities	0	0	0	0	0	0
Client rights	0	0	0	0	0	0
Future performance	0	0	0	0	0	0
Disclosure types that appear in the account agreement						
Differences between investment advisers and broker-dealers	8	8	0	3	2	1
Conflicts of interest	9	9	0	4	2	2
Compensation structure	8	8	0	6	2	4
Code of ethics or fiduciary oath	7	7	0	7	3	4
Client duties and responsibilities	9	9	0	14	4	10
Client rights	7	7	0	9	4	5
Future performance	4	4	0	4	1	3
Disclosure types that appear in the pricing schedule						
Differences between investment advisers and broker-dealers	0	0	0	0	0	0
Conflicts of interest	1	1	0	1	1	0
Compensation structure	1	1	0	0	0	0
Code of ethics or fiduciary oath	0	0	0	0	0	0
Client duties and responsibilities	0	0	0	0	0	0
Client rights	0	0	0	0	0	0
Future performance	0	0	0	0	0	0
Disclosure types that appear in the separate disclosure document						
Differences between investment advisers and broker-dealers	6	6	0	3	3	0
Conflicts of interest	8	8	0	5	3	2
Compensation structure	9	8	1	2	2	0
Code of ethics or fiduciary oath	4	4	0	4	3	1
Client duties and responsibilities	6	5	1	3	2	1
Client rights	6	6	0	4	4	0
Future performance	5	5	0	2	1	1
Disclosure types that appear on the Web site						
Differences between investment advisers and broker-dealers	5	5	0	4	2	2

Table E.1—Continued

	Broker-Dealers			Investment Advisers		
Type of Disclosure	**All**	**Large**	**Other**	**All**	**Large**	**Other**
Conflicts of interest	6	5	1	5	1	4
Compensation structure	9	6	3	5	0	5
Code of ethics or fiduciary oath	6	6	0	7	3	4
Client duties and responsibilities	8	5	3	7	5	2
Client rights	7	5	2	3	3	0
Future performance	13	7	6	8	4	4
Total disclosures found in all sources						
Differences between investment advisers and broker-dealers	31	31	0	13	10	3
Conflicts of interest	32	31	1	19	10	9
Compensation structure	37	32	5	18	7	11
Code of ethics or fiduciary oath	30	30	0	29	15	14
Client duties and responsibilities	29	25	4	27	14	13
Client rights	25	23	2	21	16	5
Future performance	32	26	6	17	8	9

APPENDIX F

American Life Panel

The ALP is an Internet panel of more than 1,000 respondents aged 18 and older. The survey is administered by the RAND Roybal Center for Financial Decision Making, which is supported by the National Institute on Aging. Respondents in the panel either use their own computer to log on to the Internet or a WebTV (now MSN TV®) device, which allows them to access the Internet using their television and a telephone line. The technology allows respondents who did not have previous Internet access to participate in the panel and furthermore use the Internet appliances for browsing the Web or using email.

About once a month, respondents receive an email with a request to visit the ALP URL and fill out questionnaires on the Internet. Typically, an interview will not take more than 30 minutes. Respondents are paid an incentive of about $20 per 30 minutes of interviewing (and proportionately less if an interview is shorter).

The respondents in the ALP are recruited from among individuals aged 18 and older who are respondents to the monthly survey of the SRC. Responses to the monthly survey are used to produce the widely reported Index of Consumer Sentiment and the Index of Consumer Expectations, the latter of which is a component of U.S. Department of Commerce's Index of Leading Economic Indicators. Each month, SRC staff interview approximately 500 households, of which 300 households are a random-digit-dial (RDD) sample and 200 are re-interviewed from the RDD sample surveyed six months previously.

SRC screens monthly survey respondents. It asks those aged 18 or older whether they have Internet access and, if yes, whether they would be willing to participate in Internet surveys (with approximate response categories "no, certainly not," "probably not," "maybe," "probably," "yes, definitely"). If the response category is anything other than "no, certainly not," respondents are told that the University of Michigan is undertaking a joint project with RAND. They are asked whether they would object to SRC sharing their information about them with RAND so that they could be contacted later and asked whether they would be willing to participate in an Internet survey.

Members of the ALP tend to have more education and income than the broader U.S. population. There are two main reasons for this sample selection. First, the monthly survey respondents, among whom the members of the ALP are recruited, tend to have more education than the population at large. Second, the majority of ALP members have their own Internet access. Americans with Internet access tend to have more education and income than the broader population.

APPENDIX G

Detailed Results of Household Survey and Focus Groups

Table G.1
Beliefs About Financial Service Professionals

Respondent Characteristic	Investment Advisers (%)	Brokers (%)	Financial Advisors or Consultants (%)	Financial Planners (%)	None (%)	Observations
What types of financial service providers provide advice about securities (e.g., shares of stocks or mutual funds) as part of their regular business?						
Age						
40 and older	79	63	77	61	3	536
Younger than 40	83	66	82	73	4	116
Education						
College degree or more	82	68	81	68	2	337
No college degree	77	58	75	57	3	315
Household income						
At least $75,000	82	69	80	64	1	290
Less than $75,000	78	59	77	62	4	357
Region						
Northeast	83	65	83	62	2	142
Midwest	80	67	79	64	1	148
West	80	56	76	66	3	119
South	77	63	75	62	5	242
Investment experience						
Experienced	82	68	80	66	2	434
Inexperienced	74	54	74	58	5	217
Uses financial service provider						
Yes	82	70	82	67	1	307

Table G.1—Continued

Respondent Characteristic	Investment Advisers (%)	Brokers (%)	Financial Advisors or Consultants (%)	Financial Planners (%)	None (%)	Observations
No	78	58	74	59	5	341
What types of financial service providers execute stock or mutual fund transactions on the client's behalf?						
Age						
40 and older	29	90	28	22	3	536
Younger than 40	27	84	30	26	7	116
Education						
College degree or more	27	91	27	21	3	337
No college degree	31	87	30	25	4	315
Household income						
At least $75,000	24	91	28	22	3	290
Less than $75,000	32	87	29	24	4	357
Region						
Northeast	27	95	25	20	1	142
Midwest	34	85	30	26	3	148
West	24	87	29	19	5	119
South	29	88	29	24	4	242
Investment experience						
Experienced	32	90	32	24	3	434
Inexperienced	24	86	21	21	4	217
Uses financial service provider						
Yes	32	91	35	24	2	307
No	26	88	22	22	5	341
What types of financial service providers recommend specific investments?						
Age						
40 and older	83	53	72	50	1	535
Younger than 40	84	40	72	47	4	116
Education						
College degree or more	85	56	74	53	1	337
No college degree	82	45	69	47	3	314

Table G.1—Continued

Respondent Characteristic	Investment Advisers (%)	Brokers (%)	Financial Advisors or Consultants (%)	Financial Planners (%)	None (%)	Observations
Household income						
At least $75,000	84	56	73	54	1	289
Less than $75,000	83	47	71	47	3	357
Region						
Northeast	87	54	72	49	1	142
Midwest	84	50	72	51	2	147
West	82	54	75	50	3	119
South	81	49	70	49	2	242
Investment experience						
Experienced	85	57	76	55	1	434
Inexperienced	79	38	64	39	4	216
Uses financial service provider						
Yes	88	59	77	57	0	307
No	79	43	68	43	4	341
What types of financial service providers provide retirement planning?						
Age						
40 and older	51	13	81	92	2	535
Younger than 40	47	10	78	89	3	116
Education						
College degree or more	51	12	86	93	2	337
No college degree	50	12	74	89	3	314
Household income						
At least $75,000	51	12	83	93	2	289
Less than $75,000	51	12	78	90	3	357
Region						
Northeast	52	15	79	89	3	142
Midwest	52	7	87	93	2	147
West	42	12	78	92	2	119
South	52	13	78	92	2	242

Table G.1—Continued

Respondent Characteristic	Investment Advisers (%)	Brokers (%)	Financial Advisors or Consultants (%)	Financial Planners (%)	None (%)	Observations
Investment experience						
Experienced	55	15	83	93	2	434
Inexperienced	41	6	74	89	3	216
Uses financial service provider						
Yes	55	16	87	93	2	307
No	47	8	74	91	3	341
What types of financial service providers provide general financial planning?						
Age						
40 and older	44	15	82	89	1	535
Younger than 40	31	7	70	86	3	116
Education						
College degree or more	44	13	83	91	1	337
No college degree	40	13	77	86	2	314
Household income						
At least $75,000	39	11	86	90	1	289
Less than $75,000	45	15	75	87	2	357
Region						
Northeast	45	13	85	92	1	142
Midwest	44	16	77	88	1	147
West	38	8	83	86	1	119
South	41	14	77	87	2	242
Investment experience						
Experienced	46	15	86	90	1	434
Inexperienced	34	10	68	84	2	216
Uses financial service provider						
Yes	49	17	86	91	1	307
No	35	10	74	86	2	341

Table G.1—Continued

Respondent Characteristic	Investment Advisers (%)	Brokers (%)	Financial Advisors or Consultants (%)	Financial Planners (%)	None (%)	Observations
What types of financial service providers typically receive commissions on purchases or trades that the client makes?						
Age						
40 and older	43	96	33	22	1	535
Younger than 40	40	94	39	24	3	116
Education						
College degree or more	42	96	36	21	1	337
No college degree	43	95	33	24	2	314
Household income						
At least $75,000	46	98	39	25	1	289
Less than $75,000	40	94	31	20	2	357
Region						
Northeast	38	98	39	20	1	142
Midwest	43	95	32	20	1	147
West	50	96	34	22	1	119
South	41	95	33	25	2	242
Investment experience						
Experienced	45	96	39	24	1	434
Inexperienced	38	95	26	19	2	216
Uses financial service provider						
Yes	49	96	42	26	1	307
No	38	96	28	19	2	341
What types of financial service providers are typically paid based on the amount of assets that the client holds?						
Age						
40 and older	49	38	51	34	12	534
Younger than 40	51	48	47	34	9	116
Education						
College degree or more	54	35	57	37	10	337
No college degree	44	45	43	30	14	313

Table G.1—Continued

Respondent Characteristic	Investment Advisers (%)	Brokers (%)	Financial Advisors or Consultants (%)	Financial Planners (%)	None (%)	Observations
Household income						
At least $75,000	57	35	61	37	9	289
Less than $75,000	43	44	42	31	14	356
Region						
Northeast	57	39	58	37	11	142
Midwest	45	40	41	27	17	147
West	53	39	53	36	8	118
South	46	40	49	35	10	242
Investment experience						
Experienced	56	36	59	39	9	433
Inexperienced	37	48	33	25	16	216
Uses financial service provider						
Yes	58	39	62	36	8	306
No	42	40	40	32	16	341
What types of financial service providers are required by law to act in a client's best interest?						
Age						
40 and older	49	44	58	55	19	535
Younger than 40	47	35	61	58	18	116
Education						
College degree or more	48	41	59	60	19	337
No college degree	49	44	58	51	19	314
Household income						
At least $75,000	48	40	59	61	17	289
Less than $75,000	49	44	58	51	21	357
Region						
Northeast	50	43	59	56	15	142
Midwest	45	39	56	54	22	147
West	48	45	55	49	22	119
South	50	42	61	59	18	242

Table G.1—Continued

Respondent Characteristic	Investment Advisers (%)	Brokers (%)	Financial Advisors or Consultants (%)	Financial Planners (%)	None (%)	Observations
Investment experience						
Experienced	50	40	61	59	20	434
Inexperienced	46	47	54	49	18	216
Uses financial service provider						
Yes	55	45	63	60	18	307
No	43	40	55	52	20	341
What types of financial service providers are required by law to disclose any conflicts of interest?						
Age						
40 and older	61	58	56	50	19	535
Younger than 40	66	60	65	53	15	116
Education						
College degree or more	62	60	58	54	18	337
No college degree	61	56	56	47	19	314
Household income						
At least $75,000	64	62	62	57	15	289
Less than $75,000	60	55	54	46	21	357
Region						
Northeast	59	61	57	54	19	142
Midwest	67	63	62	50	15	147
West	60	58	51	45	22	119
South	62	53	58	51	18	242
Investment experience						
Experienced	62	58	60	54	18	434
Inexperienced	62	59	52	44	18	216
Uses financial service provider						
Yes	66	63	62	55	16	307
No	59	55	53	47	20	341

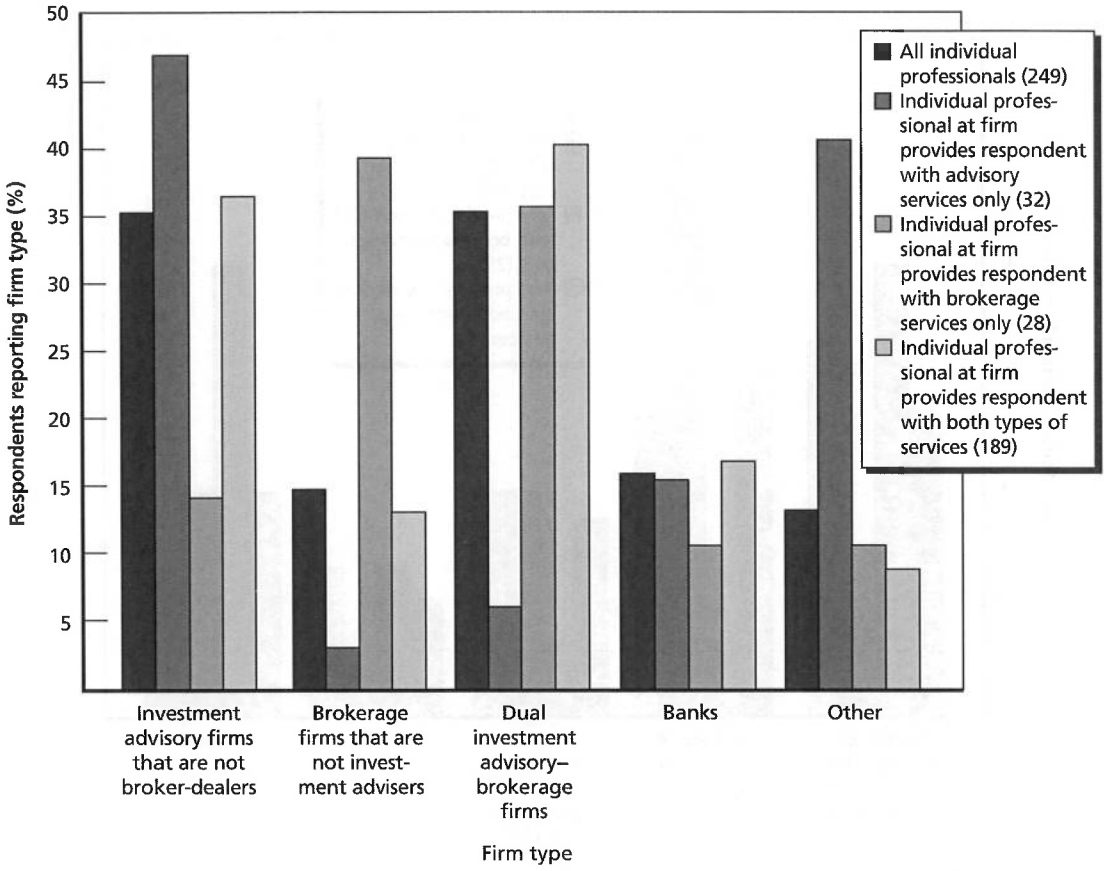
SOURCE: ALP survey.

Table G.2
Commonly Reported Titles for First Individual Reported

Title	All Individual Professionals	Provide Advisory Services Only	Provide Brokerage Services Only	Provide Both Types of Services
Advisor	7	1	1	5
Banker	5	2	0	3
Broker, stockbroker, registered representative	19	0	4	15
CFP	12	1	1	10
Financial adviser or financial advisor	54	7	5	42
Financial consultant	17	2	0	15
Financial planner	34	6	1	27
Investment adviser or investment advisor	18	3	2	13
President or vice president	15	0	1	14

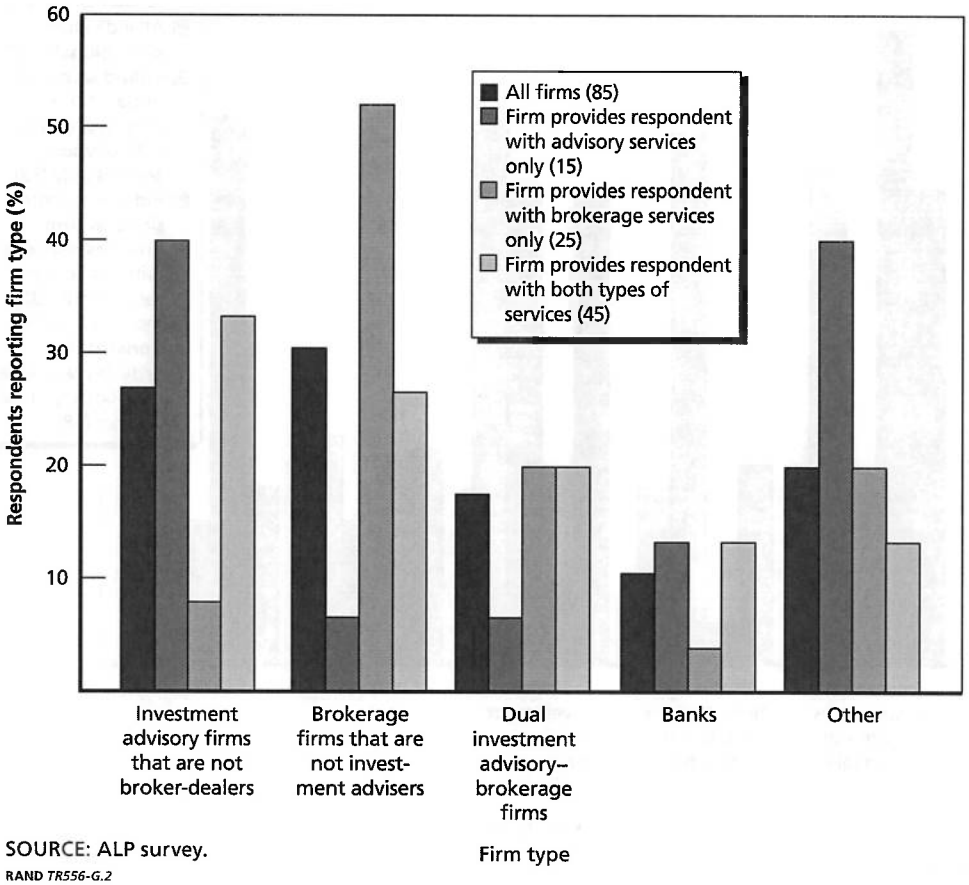
SOURCE: ALP survey.

Figure G.1
Types of Firms That Employ First Individual Professionals Reported



SOURCE: ALP survey.
RAND *TR556-G.1*

Figure G.2
Types of Firms Used That Are Not Associated with Individual Professionals (First-Reported Firms Only)



SOURCE: ALP survey.

RAND *TR556-G.2*

Table G.3
Reasons Given for Not Using a Financial Service Provider

		Age		Education		Household Income		Region				Investment Experience	
Reason	All	40 and Older	Under 40	College Degree or More	No College Degree	At Least $75,000	Less Than $75,000	Northeast	Midwest	West	South	Experienced	Inexperienced
No money for investments (%)	47	46	50	33	58	26	60	25	55	47	55	28	67
Too expensive (%)	13	12	17	14	13	16	11	15	11	22	10	17	9
Too hard to choose one (%)	6	5	12	8	5	10	4	7	5	10	5	8	4
I don't need assistance with my financial decisions (%)	21	24	12	29	16	28	18	35	19	15	18	33	10
Had one and didn't like him, her, or firm (%)	8	9	7	9	7	12	6	7	4	15	9	14	2
Other (%)	19	17	29	27	14	27	15	25	19	15	18	23	15
Observations	340	264	76	150	190	130	209	72	84	60	123	175	164

SOURCE: ALP survey.

Table G.4
Desired Assistance with Financial Matters

		Age		Education		Household Income		Region				Investment Experience		Uses Financial Service Provider	
Service	All	40 and Older	Under 40	College Degree or More	No College Degree	At Least $75,000	Less Than $75,000	Northeast	Midwest	West	South	Experienced	Inexperienced	Yes	No
Asset management (%)	30	31	24	38	22	35	26	39	25	27	29	39	12	44	17
College-saving planning (%)	17	12	41	17	17	20	15	12	17	24	17	16	20	14	20
Debt consolidation or management (%)	18	16	30	14	23	14	22	12	18	22	21	10	34	11	24
Developing a budget and saving plan (%)	24	19	46	19	29	19	28	18	27	20	28	16	40	14	33
Estate planning (%)	35	39	19	39	31	41	30	42	33	37	32	42	23	43	28
Executing stock or mutual fund transactions (%)	27	27	25	31	22	29	25	34	22	28	25	34	13	43	13
General financial planning (%)	38	38	41	40	37	38	38	41	39	41	35	41	33	44	33
Investment advising (%)	41	39	47	48	33	41	40	47	46	38	35	48	25	54	28
Retirement planning (%)	62	62	64	66	58	71	55	64	67	63	58	65	56	69	56

Table G.4—Continued

		Age		Education		Household Income		Region				Investment Experience		Uses Financial Service Provider	
Service	All	40 and Older	Under 40	College Degree or More	No College Degree	At Least $75,000	Less Than $75,000	Northeast	Midwest	West	South	Experienced	Inexperienced	Yes	No
Other (%)	3	3	2	2	3	1	3	3	2	2	3	1	5	1	4
Observations	634	521	113	325	309	280	349	137	147	116	233	421	212	296	338

SOURCE: ALP survey.

Table G.5
Focus-Group Participants' Beliefs About Financial Service Providers

Respondent	Investment Advisers (%)	Brokers (%)	Financial Advisors or Consultants (%)	Financial Planners (%)	None (%)	Observations
What types of financial service providers provide advice about securities (e.g., shares of stocks or mutual funds) as part of their regular business?						
Age						
40 and older	80	64	80	66	0	44
Younger than 40	96	57	70	57	0	23
Education						
College degree or more	89	61	76	68	0	38
No college degree	79	62	76	55	0	29
Focus-group location						
Virginia	84	58	84	65	0	31
Indiana	86	64	69	61	0	36
Investment experience						
Experienced	80	62	73	58	0	45
Inexperienced	95	59	82	73	0	22
Uses financial service provider						
Yes	82	74	74	62	0	34
No	88	48	79	64	0	33
What types of financial service providers execute stock or mutual fund transactions on the client's behalf?						
Age						
40 and older	36	77	30	21	0	44
Younger than 40	9	96	9	13	0	23
Education						
College degree or more	18	89	16	14	0	38
No college degree	38	76	31	24	0	29
Focus-group location						
Virginia	23	87	17	13	0	31
Indiana	31	81	28	22	0	36
Investment experience						
Experienced	22	89	18	16	0	45

Table G.5—Continued

Respondent	Investment Advisers (%)	Brokers (%)	Financial Advisers or Consultants (%)	Financial Planners (%)	None (%)	Observations
Inexperienced	36	73	32	23	0	22
Uses financial service provider						
Yes	29	88	21	24	0	34
No	24	79	24	12	0	33
What types of financial service providers recommend specific investments?						
Age						
40 and older	93	41	66	48	0	44
Younger than 40	91	57	70	43	0	23
Education						
College degree or more	97	55	71	47	0	38
No college degree	86	34	62	45	0	29
Focus-group location						
Virginia	90	48	71	55	0	31
Indiana	94	44	64	39	0	36
Investment experience						
Experienced	91	49	64	42	0	45
Inexperienced	95	41	73	55	0	22
Uses financial service provider						
Yes	91	50	68	53	0	34
No	94	42	67	39	0	33
What types of financial service providers provide retirement planning?						
Age						
40 and older	41	11	80	91	0	44
Younger than 40	35	13	83	91	0	23
Education						
College degree or more	42	13	92	95	0	38
No college degree	34	10	66	86	0	29
Focus-group location						
Virginia	35	13	81	97	0	31

Table G.5—Continued

Respondent	Investment Advisers (%)	Brokers (%)	Financial Advisers or Consultants (%)	Financial Planners (%)	None (%)	Observations
Indiana	42	11	81	86	0	36
Investment experience						
Experienced	36	16	80	91	0	45
Inexperienced	45	5	82	91	0	22
Uses financial service provider						
Yes	47	21	79	91	0	34
No	30	3	82	91	0	33
What types of financial service providers provide general financial planning?						
Age						
40 and older	34	14	75	89	0	44
Younger than 40	30	22	87	96	0	23
Education						
College degree or more	34	21	92	97	0	38
No college degree	31	10	62	83	0	29
Focus-group location						
Virginia	35	19	81	94	0	31
Indiana	31	14	78	89	0	36
Investment experience						
Experienced	36	22	80	91	0	45
Inexperienced	27	5	77	91	0	22
Uses financial service provider						
Yes	35	18	76	91	0	34
No	30	15	82	91	0	33
What types of financial service providers typically receive commissions on purchases or trades that the client makes?						
Age						
40 and older	49	93	47	33	0	44
Younger than 40	70	100	39	35	0	23
Education						
College degree or more	59	100	49	41	0	38

Table G.5—Continued

Respondent	Investment Advisers (%)	Brokers (%)	Financial Advisers or Consultants (%)	Financial Planners (%)	None (%)	Observations
No college degree	52	90	38	24	0	29
Focus-group location						
Virginia	60	100	43	30	0	31
Indiana	53	92	44	36	0	36
Investment experience						
Experienced	52	100	45	39	0	45
Inexperienced	64	86	41	23	0	22
Uses financial service provider						
Yes	52	100	45	42	0	34
No	61	91	42	24	0	33
What types of financial service providers are typically paid based on the amount of assets that the client holds?						
Age						
40 and older	41	48	49	23	9	44
Younger than 40	61	74	39	13	0	23
Education						
College degree or more	59	58	46	24	5	38
No college degree	41	55	45	14	7	29
Focus-group location						
Virginia	60	71	37	20	6	31
Indiana	44	44	53	19	6	36
Investment experience						
Experienced	50	60	41	18	7	45
Inexperienced	55	50	55	23	5	22
Uses financial service provider						
Yes	48	56	48	27	3	34
No	55	58	42	12	9	33
What types of financial service providers are required by law to act in a client's best interest?						
Age						
40 and older	66	70	61	55	14	44
Younger than 40	61	48	52	61	26	23

Table G.5—Continued

Respondent	Investment Advisers (%)	Brokers (%)	Financial Advisers or Consultants (%)	Financial Planners (%)	None (%)	Observations
Education						
College degree or more	68	71	58	58	18	38
No college degree	59	52	59	55	17	29
Focus-group location						
Virginia	58	61	48	58	19	31
Indiana	69	64	67	56	17	36
Investment experience						
Experienced	64	67	58	60	20	45
Inexperienced	64	55	59	50	14	22
Uses financial service provider						
Yes	74	74	68	59	15	34
No	55	52	48	55	21	33
What types of financial service providers are required by law to disclose any conflicts of interest?						
Age						
40 and older	64	75	61	82	16	44
Younger than 40	52	61	61	52	22	23
Education						
College degree or more	61	74	58	82	18	38
No college degree	59	66	66	59	17	29
Focus-group location						
Virginia	65	71	65	97	16	31
Indiana	56	69	58	50	19	36
Investment experience						
Experienced	53	71	53	71	22	45
Inexperienced	73	68	77	73	9	22
Uses financial service provider						
Yes	56	71	53	79	24	34
No	64	70	70	64	12	33

SOURCE: ALP survey.

APPENDIX H

Supplemental Analysis of Industry Data from 2001 to 2006

In this appendix, we report on an analysis of trends in data derived from regulatory filings made by investment advisers and broker-dealers. This analysis supplements the findings reported in Chapter Four.

Investment Advisers

In Chapter Four, we classify each investment advisory firm as one of five mutually exclusive and exhaustive types:

1. **Dually Registered**: A matching unique firm identifier (hereinafter, CRD number) exists in both the IARD database and a broker-dealer database (either CRD data or FOCUS reports) for the corresponding business quarter.
2. **Reportedly Engaged as Broker-Dealer**: IARD data indicate that the firm has self-reported as being engaged in business as a broker-dealer, but no matching CRD number is found (i.e., not of type 1).
3. **Registered Representative**: IARD data indicate that the firm is a registered representative of a broker-dealer, and the firm is not of type 1 or 2.
4. **Affiliated Activity**: IARD data indicate that a related person is a broker-dealer, municipal securities dealer, or government securities broker or dealer, and the firm is not of type 1, 2, or 3.
5. **Neither Dual nor Affiliated Activity**: The firm is not of type 1, 2, 3, or 4.

As described in Table H.1, the great majority of firms in the IARD data are of the fifth type—neither dual nor affiliated activity—and it is these firms that account for most of the growth in the number of firms in our IARD data from 2001 through 2006. In this appendix, we document the year-to-year changes in the composition of firms and the assets that these firms managed from 2001 through 2006. Here, we include all firms that are listed in the IARD database, rather than restricting attention to those firms that report clients who are individuals. We do so to simplify the analysis. Even with this simplification, we still are left to track ten different categories of firms defined by type of business activity and year of entry into the IARD database.

Table H.1
Number of Advisers of Each Type, by Year

Fourth Quarter of Year	Dually Registered (FOCUS)	Reportedly Engaged as Broker-Dealer	Registered Representative	Affiliated Activity	Neither Dual nor Affiliated Activity
2001	527	124	826	1,803	4,334
2002	538	131	841	1,810	4,455
2003	548	112	858	1,850	4,724
2004	525	105	868	1,872	5,253
2005	518	101	819	1,904	5,742
2006	536	94	855	2,009	6,990

SOURCES: Activities and affiliations reported in IARD database. Dually registered firms determined by match in IARD and FOCUS data.

Changes in Composition of Firms

We report next on the rate of entry into and exit out of each business-type classification and the database as a whole. Note again that database entry or exit reflects a change in registration status of a firm, which may or may not indicate that the firm entered or exited the market.

We begin by reporting on the probability that a firm changes from one type to another across years. Average year-to-year transition probabilities from 2001 through 2006 are reported in Table H.2.[1] The most stable types are dually registered, affiliated activity, and neither dual nor affiliated activity. In each case, about 90 percent of firms stay in the data set *and* stay the same type across years. Most of the firms that exit the type classification actually exit the database. About 7 or 8 percent exit the database each year from these categories.

The group of firms reportedly engaged as a broker-dealer constitutes the least stable type. Only about two-thirds retain this classification from one year to the next. The most likely transition is to exit the database, indicating that perhaps these firms—12 percent of firms in this classification—actually were previously dually registered but simply exited the FOCUS database before exiting the IARD database. An almost equally large share of these firms—10 percent—transitioned to affiliated activity, which is consistent with either the possible reporting problems described in Chapter Four or simply a reporting lag associated with changes in business activities.

About four-fifths of the registered representative firms retained this classification from one year to the next. Most of those that exited this classification either became the neither-dual-nor-affiliated type or exited the database.

The bottom row of Table H.2 describes the initial classification of firms that were not in the IARD database in the fourth quarter of the preceding year. A comparison with the entries in Table H.1 reveals that these firms are more likely than the randomly selected firm to be classified as neither dual nor affiliated activity—70 percent versus 61 percent—and less likely to be either dually registered—4 percent versus 6 percent—or affiliated activity—15 percent versus

[1] The transition probabilities are weighted by the number of observations in each category in each year. These values are nearly identical to those obtained when we drop the data from 2006, when many hedge funds apparently registered for the first time. Only one entry changes by more than 2 percentage points: The probability of transitioning from not being in IARD to being neither dual nor affiliated activity falls from 70 percent to 67 percent.

Table H.2
Distribution of Investment Advisory Firm Types in Year t, Conditional on Type in Prior Year (t–1)

Classification in Year t-1	Dually Registered (FOCUS) (%)	Reportedly Engaged as Broker-Dealer (%)	Registered Representative (%)	Affiliated Activity (%)	Neither Dual nor Affiliated Activity (%)	Not in IARD (%)
Dually registered (FOCUS)	90	1	0	0	0	8
Reportedly engaged as broker-dealer	2	67	4	10	5	12
Registered representative	0	0	81	2	8	8
Affiliated activity	0	0	1	87	4	7
Neither dual nor affiliated activity	0	0	1	2	91	7
Not in IARD	4	1	9	15	70	0

SOURCE: Activities and affiliations reported in IARD database for the fourth quarter of each year from 2001 through 2006. Dually registered firms determined by match in IARD and FOCUS data.

22 percent. That is, the new registrants are less likely to be directly or indirectly engaged in brokerage activities.[2]

To get a better understanding of changes in the market since 2001, we categorized firms according to the classification by type in 2001 or, if the firm was not listed as of 2001, the year of entry into the IARD database. Table H.3 lists the number of firms in each of ten mutually exclusive and exhaustive categories. The entries in the first five rows replicate the entries in the first row of Table H.1. The entries in the last five rows show the number of new entrants each year—that is, the firms that were not in the IARD in the fourth quarter of 2001.[3] Table H.3 indicates that 43 percent of the firms (5,714 out of 13,328) that appear in the IARD database in the fourth quarter of any year from 2001 through 2006 are classified as new entrants.

Table H.4 describes the classification of firms as of the fourth quarter of 2006, conditional on the classification in Table H.3. The first five rows again describe types in the database as of 2001. The entries in these rows may be compared to the year-to-year transition probabilities in Table H.2. The general pattern is the same here, but attrition from the data set (i.e., percentage not in IARD) is much higher, because these entries describe five-year transition probabilities rather than one-year transition probabilities. The five-year probabilities of switching types but staying in the data set are also larger. As a result, the entries on the diagonal (i.e.,

[2] This result is less pronounced when we restrict attention to the period 2001 through 2005, thereby excluding the many hedge funds that registered in 2006. As reported previously, the probability of transition from not being in IARD to being neither dual nor affiliated activity falls from 70 percent to 67 percent.

[3] These firms constitute most of the sample on which the entries in the bottom row of Table H.2 are based. Firms are also included in the bottom row of Table H.2 if they were in the database in 2001, transitioned out of it, and then subsequently came back in.

Table H.3
Number of Advisers, by Type in 2001 or Entry Year

Entry Year	Classification	Number of Firms
Fourth quarter of 2001	Dually registered (FOCUS)	527
	Reportedly engaged as broker-dealer	124
	Registered representative	826
	Affiliated activity	1,803
	Neither dual nor affiliated activity	4,334
2002		824
2003		870
2004		1,056
2005		1,026
2006		1,938
Total		13,328

SOURCES: Activities and affiliations reported in IARD database for the fourth quarter of 2001. Dually registered firms determined by match in IARD and FOCUS data. New entrants determined by IARD data.

probability of being of the same type in 2006 as in 2001) are much lower than in the case of one-year transition probabilities.

The entries in the last five rows of Table H.4 supplement the findings on new entrants presented in Table H.2. The 2006 classification of firms does not vary much by entry year but for the higher attrition rates among firms with earlier entry years. Note that the higher attrition rates are pretty much offset by lower shares in the neither-dual-nor-affiliated-activity classification.

Changes in Assets Under Management

The amount and distribution of reported assets under management has changed markedly since 2001. Table H.5 describes total assets under management reported by all firms in the IARD database in the fourth quarter of each year. This table may be compared to Table 4.7 in Chapter Four, which restricts attention to firms with individual clients. The patterns of variation reported in these two tables are similar across years, but the magnitudes are larger here. As in Table 4.7, the growth in assets under management during this period is attributable to assets in discretionary accounts, which grew from $19 trillion in 2001 to $29 trillion in 2006.

Continuing this comparison with Table 4.7, we find that firms with individual clients reported from 53 to 56 percent of all assets under management each year. From 2001 through 2003, firms with individual clients reported about 75 percent of assets in nondiscretionary accounts. This share fell below 60 percent from 2004 through 2006, but this change had little effect on the overall picture, because assets in nondiscretionary accounts constituted only about 10 percent of all assets under management throughout the period.

Next, we consider changes in assets under management by type of firm in 2001 or, for new entrants, by entry year. Figures H.1 and H.2 depict the totals of managed assets in discretionary accounts and nondiscretionary accounts, respectively. The patterns displayed in Figure

Table H.4
Distribution of Investment Advisory Firm Types in 2006, Conditional on 2001 Type or Entry Year

		Classification in Fourth Quarter of 2006 (%)					
Entry Year	Classification in 2001 or Entry Year	Dually Registered (FOCUS)	Reportedly Engaged as Broker-Dealer	Registered Representative	Affiliated Activity	Neither Dual nor Affiliated Activity	Not in IARD
Fourth quarter of 2001	Dually registered (FOCUS)	66	1	0	2	4	28
	Reportedly engaged as broker-dealer	2	25	9	23	10	31
	Registered representative	0	1	42	7	21	29
	Affiliated activity	0	1	2	55	12	30
	Neither dual nor affiliated activity	0	0	1	4	69	26
2002		4	0	6	14	44	31
2003		4	0	6	13	51	25
2004		3	1	8	14	58	17
2005		3	0	9	13	63	12
2006		3	1	6	12	78	0

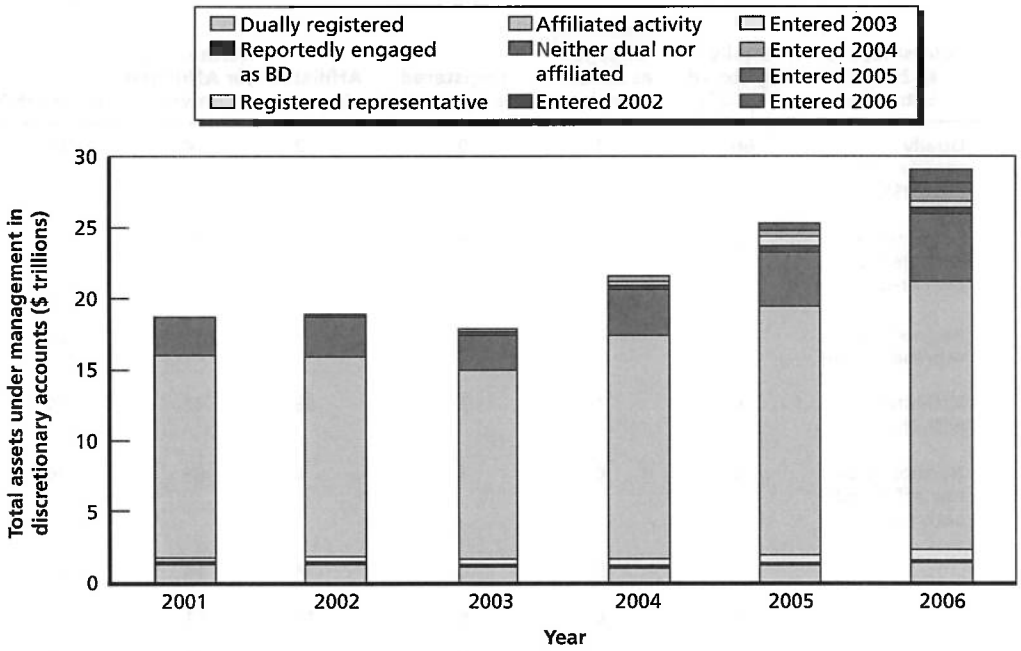
SOURCES: Activities and affiliations reported in IARD database for the fourth quarters of 2001 and 2006. Dually registered firms determined by match in IARD and FOCUS data. New entrants determined by IARD data.

Table H.5
Assets Under Management, 2001–2006: Investment Advisers That Reported Continuous and Regular Supervisory or Management Services to Securities Portfolios

		Total Assets ($ trillions)		
Fourth Quarter of Year	Number of Investment Advisers	All Accounts	Discretionary Accounts	Nondiscretionary Accounts
2001	6,834	21.00	18.72	2.28
2002	7,102	21.16	18.87	2.29
2003	7,367	20.14	17.89	2.24
2004	7,905	23.95	21.59	2.36
2005	8,428	27.74	25.29	2.45
2006	9,803	32.07	29.13	2.95

SOURCE: Assets under management reported in IARD database.

Figure H.1
Total Assets Under Management in Discretionary Accounts, by Year and 2001 Firm Type or Entry Year



SOURCES: Assets under management reported in IARD database for fourth quarter of each year. Dually registered firms determined based on IARD and FOCUS data. Other firm types and entry years determined by IARD data.

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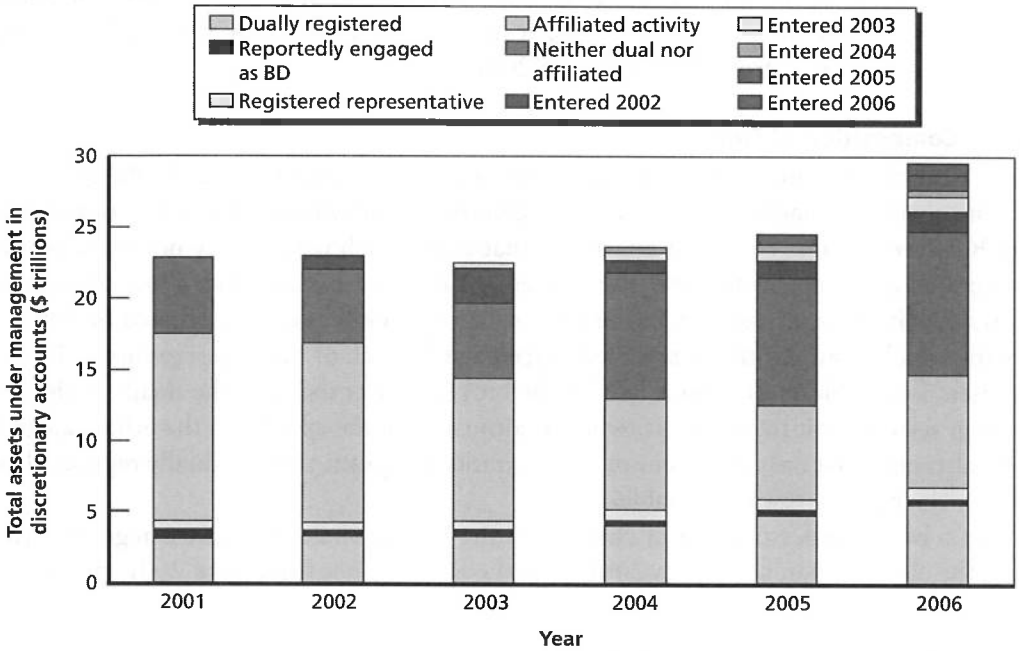
H.1 may be compared to those in Figure 4.2 in Chapter Four, which depicts assets managed in discretionary accounts by firms with individual clients, with firm type defined contemporaneously. In Figure H.1, we see that about half of the overall growth in discretionary accounts from 2003 through 2006 is attributable to growth in assets managed by firms of the affiliated-activity type in 2001. New entrants account for about one-fourth the overall growth during this interval.

The patterns displayed in Figure H.2 may be compared to those in Figure 4.3 in Chapter Four, which depicts assets managed in nondiscretionary accounts by firms with individual clients, with firm type defined contemporaneously. In Figure H.2, we see a very different pattern of change from 2001 through 2006. In particular, when all investment advisers are included in the analysis, total assets in nondiscretionary accounts are relatively stable during the first four years of the period, which was a period of decline in the sample of firms with individual clients described in Chapter Four. We also find that total assets in nondiscretionary accounts declined for firms of the affiliated activity type in 2001 and increased for dually registered firms, which parallels the findings in Chapter Four. New entrants reported about $480 million in nondiscretionary accounts for the fourth quarter of 2006, accounting for more than 70 percent of the total increase in managed assets from 2001 through 2006.

Figure H.2
Total Assets Under Management in Nondiscretionary Accounts, by Year and 2001 Firm Type or Entry Year



SOURCES: Assets under management reported in IARD database for fourth quarter of each year. Dually registered firms determined based on IARD and FOCUS data. Other firm types and entry years determined by IARD data.

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Broker-Dealers

We continue our supplemental analysis by focusing on broker-dealer firms. In Chapter Four, we classify each broker-dealer firm as one of five mutually exclusive and exhaustive types:

1. **Dually Registered (Database Match)**: A matching CRD number is found in our IARD database on investment advisers for the corresponding business quarter.
2. **Dually Registered (Web-Site Match)**: A matching record was found in the SEC's searchable database of investment advisers—e.g., state-registered (see Appendix A)—but no matching CRD number is found in our IARD database (i.e., not type 1).
3. **Reportedly Engaged in Investment Advisory Services Business**: CRD data indicate that the firm provided investment advisory services, but we found no matching CRD number in our IARD database and no matching record in the SEC's searchable database.
4. **Affiliated Activity**: CRD data indicate that the firm directly or indirectly controls, is controlled by, or is under common control with another entity engaged in the securities or investment advisory business, and the firm is not of type 1, 2, or 3.
5. **Neither Dual nor Affiliated Activity**: The firm is not of type 1, 2, 3, or 4.

In contrast to our data on investment advisers, the broker-dealer data do not allow us to track the number of firms in each classification back over time. Instead, we can track only whether or not a broker-dealer falls into the dually registered (database match) category based on matches between the FOCUS and IARD data. Table H.6 reports the number of dually registered firms and the number of other broker-dealer firms in the FOCUS database in the fourth quarter of each year from 2001 through 2006.

Changes in Composition of Firms

We report next on the rate of entry into and exit out of each category and the database as a whole. Note again that database entry or exit is determined by whether the broker-dealer firm filed a FOCUS report for the fourth quarter of that year, which may or may not indicate that the firm entered or exited the market. The entries in Table H.7 indicate that about 90 percent of firms stay in the data set *and* stay in the same category—either dually registered or other—across years, which is similar to the reported percentage for each of the largest groups of investment advisers (see Table H.2). About half of the broker-dealers that exit the dually registered classification actually exit the database, whereas almost all of the exits from the other category do so. We also note that only 3 percent of new entrants in a given year are dually registered, as described in the bottom row of the table.

To get a better understanding of changes in the market since 2001, we categorize firms according the classification by type in 2001 or, if the firm was not listed as of 2001, the year of

Table H.6
Number of Broker-Dealers of Each Type, by Year

Fourth Quarter of Year	Dually Registered (FOCUS)	All Other Firm Types
2001	527	4,999
2002	538	4,876
2003	548	4,759
2004	525	4,700
2005	518	4,616
2006	536	4,532

SOURCES: FOCUS database for fourth quarter of each year. Dually registered firms determined by match in IARD and FOCUS data.

Table H.7
Classification Distribution of Broker-Dealer Firms in Year t, Conditional on Prior Year (t-1) Classification

Classification	Dually Registered (FOCUS) (%)	All Other Firm Types (%)	Not in FOCUS (%)
Dually registered (FOCUS)	90	5	5
All other firm types	1	91	8
Not in FOCUS	3	97	0

SOURCES: FOCUS database for fourth quarter of each year from 2001 through 2006. Dually registered firms determined by match in IARD and FOCUS data.

entry into the FOCUS database. Table H.8 lists the number of firms in each of seven mutually exclusive and exhaustive categories. The entries in the first two rows replicate entries in the first row of Table H.6. The entries in the last five rows show the number of new entrants each year. Table H.8 indicates that 21 percent of the firms (1,492 out of 7,018) that appear in the FOCUS database in the fourth quarter of any year from 2001 through 2006 are classified as new entrants. Recall that new entrants account for 43 percent of investment advisory firms in the IARD.

Table H.9 describes the classification of firms as of the fourth quarter of 2006, conditional on the classification in Table H.8. The first two rows again describe types in the database as of 2001. The entries in these rows may be compared to the year-to-year transition probabilities in

Table H.8
Number of Broker-Dealers, by Firm Type in 2001 or Entry Year

Entry Year	Classification	Number of Firms
Fourth quarter of 2001	Dually registered (FOCUS)	4,999
	All other firm types	527
2002		349
2003		311
2004		303
2005		290
2006		239
Total		7,018

SOURCES: FOCUS database for fourth quarter of each year. Dually registered firms determined by match in IARD and FOCUS data.

Table H.9
Classification Distribution of Broker-Dealer Firms in 2006, Conditional on Classification in 2001 or Entry Year

		Classification in Fourth Quarter of 2006 (%)		
Entry Year	Classification in 2001 or Entry Year	Dually Registered (FOCUS)	All Other Firm Types	Not in FOCUS
Fourth quarter of 2001	Dually registered (FOCUS)	66	13	21
	All other firm types	3	65	33
2002		4	72	23
2003		4	75	21
2004		1	85	14
2005		4	90	6
2006		2	98	0

SOURCES: FOCUS database for fourth quarter of each year. Dually registered firms determined by match in IARD and FOCUS data.

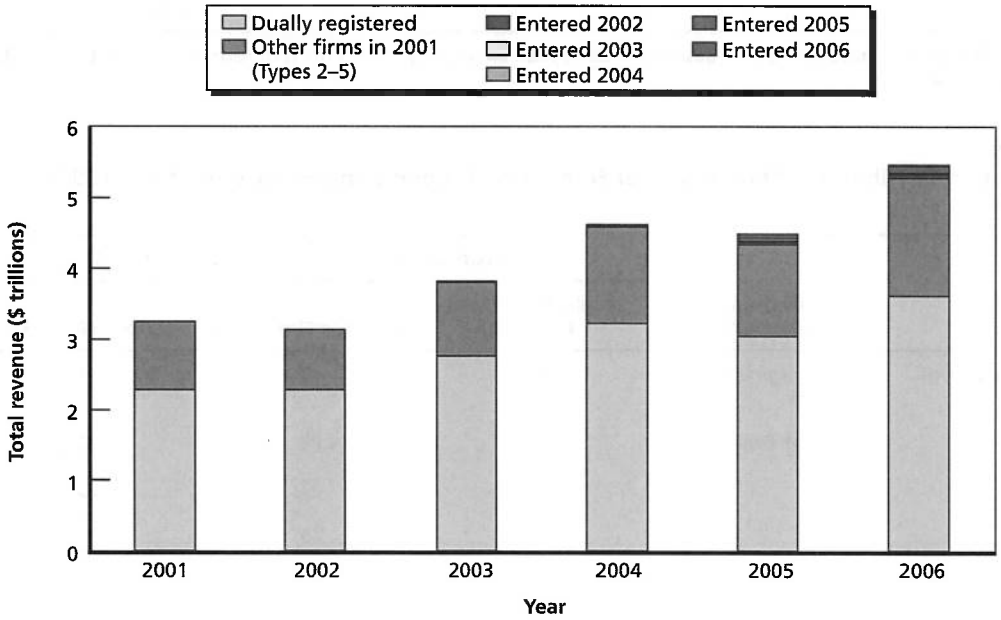
Table H.7. The general pattern in Table H.9 is the same as in Table H.7, but the attrition rate from the data set (i.e., percentage not in FOCUS) and the probability of switching rates are much higher, because these entries describe five-year transition probabilities rather than one-year transition probabilities. As a result, the entries on the diagonal (i.e., probability of being of the same type in 2006 as in 2001) are much lower than in the case of one-year transition probabilities. As we found with the IARD data, about two-thirds of dually registered firms in 2001 are still dually registered in 2006.

The entries in the last five rows of Table H.9 supplement the findings on new entrants presented in Table H.7. The 2006 classification of firms does not vary much by entry year but for the higher attrition rates among firms with earlier entry years. Note that the higher attrition rates are approximately offset by lower shares in the all—other-firm-types classification.

Balance Sheet and Income Statements

Now we consider the assets and income reported by broker-dealers during the sample period. Figure H.3 depicts the sum of total assets reported in the fourth quarter of each year, by 2001 firm type or, if the firm was not listed as of 2001, the year of entry into the FOCUS database. Recalling that dually registered firms account for only about 10 percent of firms, the figure clearly documents the extent to which dual registrants at the end of 2001 represent far larger operations than their counterparts as measured by assets throughout the period. We also see that new entrants account for a small fraction of total assets by the end of the period.

Figure H.3
Sum of Total Assets, by Year and Firm Type in 2001 or Entry Year



SOURCES: Assets reported in FOCUS database in fourth quarter of each year. Dually registered firms determined based on IARD and FOCUS data in fourth quarter of 2001.

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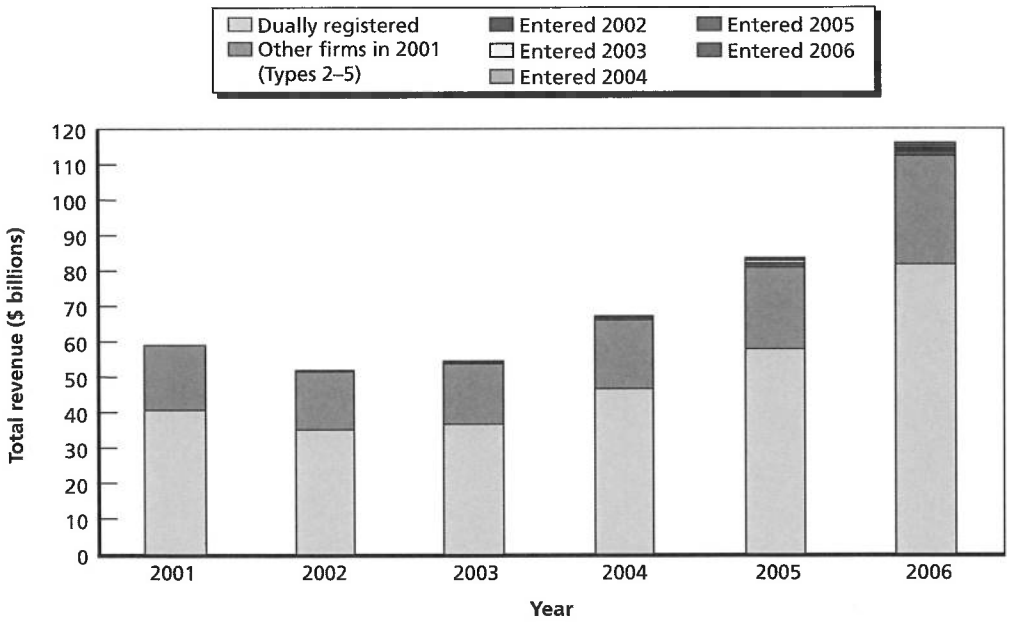
As we found in Chapter Four, when focusing on mean values and conditioning on contemporaneously defined firm types, the sum of total revenues varied over the period in much the same way as total assets did. These trends are depicted here in Figure H.4. The results for the sum of net income, depicted in Figure H.5, are comparable to results presented in Figure 4.6 in Chapter Four.

We conclude this analysis with supplemental findings on broker-dealer revenues that may be attributed to investment advisory services. Figure H.6 depicts the total of quarterly revenues reported on the FOCUS reports in field 3975, which includes *but is not limited to* investment advisory fees. We report in Chapter Four that these fees constitute less than 7 percent of all reported revenue in the fourth quarter of 2006, which may be verified by comparing the rightmost column in Figure H.6 to the rightmost column of Figure H.4. Comparing the other columns reveals that this share is almost 8 percent in 2001, increases to almost 9 percent in 2003 and then falls each year through 2006.

Figure H.6 also clearly documents the extent to which these fees are generated by firms that were dually registered in 2001, increasing from almost $4 billion in 2001 to almost $6 billion in 2006. Further analysis of the statistics on which Figures H.4 and H.6 are based reveals that the fees reported in field 3975 constitute a larger share of total revenues for dually registered firms during the first half of the period (ranging from 9 to 11 percent) than they do during the second half of the period (declining to 7 percent in 2006). Among other firms in existence in 2001, the share ranges from 4 to 5 percent throughout the period. The declining differential across these two groups may arise from transitions between types over the sample period. Finally, note that new entrants reported a small fraction of these fees.

Figure H.4
Sum of Total Revenue, by Year and Firm Type in 2001 or Entry Year



SOURCES: Revenue reported in FOCUS database in fourth quarter of each year. Dually registered firms determined based on IARD and FOCUS data in fourth quarter of 2001.

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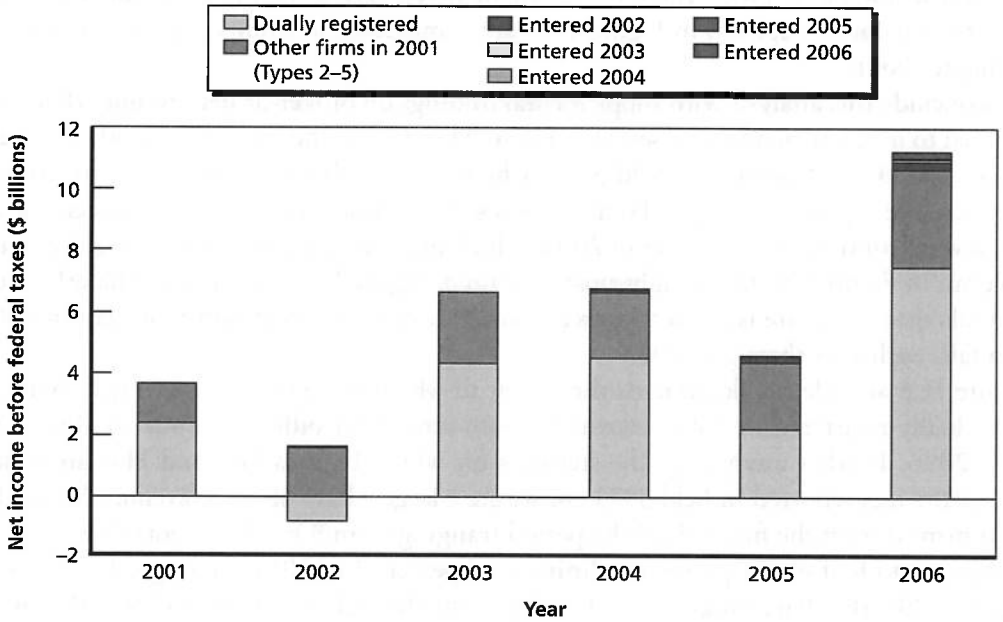
Figure H.5
Sum of Net Income Before Federal Taxes, by Year and Firm Type in 2001 or Entry Year



SOURCES: Net income reported in FOCUS database in fourth quarter of each year. Dually registered firms determined based on IARD and FOCUS data in fourth quarter of 2001.

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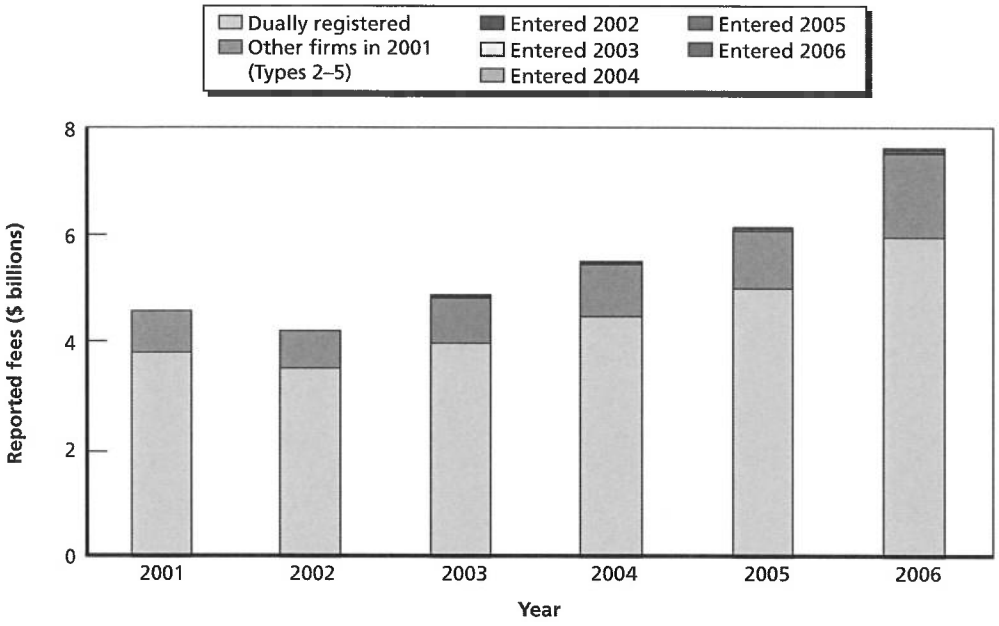
Figure H.6
Sum of Reported Fees for Account Supervision, Investment Advisory, and Administrative Services, by Year and Firm Type in 2001 or Entry Year



SOURCES: Fees reported in field 3975 in FOCUS database in fourth quarter of each year. Dually registered firms determined based on IARD and FOCUS data in fourth quarter of 2001.

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