# Fundamentals

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# The Cost of Buying and Owning Mutual Funds

▼ he Investment Company Institute (ICI) has published numerous studies on mutual fund fees and expenses since 1998. These studies have shown that the cost of sales loads and annual expenses paid by mutual fund shareholders has dropped sharply since 1980 and that funds pass along cost savings achieved from scale economies.1 Furthermore, the U.S. Securities and Exchange Commission (SEC) has concluded that large funds generally have lower expense ratios than do small funds,<sup>2</sup> and a General Accounting Office (GAO) study found that, for a group of large stock and bond funds, fees fell for a large majority of those that had asset growth.3 Nonetheless, the conventional wisdom persists that the cost that shareholders pay for investing in mutual funds is rising and that shareholders have not benefited from the scale economies as their funds experienced growth.

This issue of *Fundamentals* examines these misperceptions about fund fees, which have arisen in large part because industry analysts often ignore the structural changes that the mutual fund

industry has undergone during the past two decades. One frequently overlooked change is the means by which fund shareholders pay for advice and service from brokers and other financial advisers. Fund shareholders rely less on sales loads and more on annual 12b-1 fees to pay for these services than even ten years ago. Because most analysts ignore this development, they fail to realize that the increase in 12b-1 fees has been offset by the drop in sales loads paid by fund shareholders.

Another significant but overlooked change is a 20-fold increase in the number of fund shareholders since 1980. Industry analysts often focus on the growth in assets but fail to recognize that the expansion in the number of shareholder accounts has increased operational costs, thereby offsetting cost savings achieved from asset appreciation for individual funds.

Analysts also tend to overlook the effect of new funds on expense ratios. Over the past two decades, the growth in investor demand and low barriers to entry have prompted the formation of many new fund companies. These new companies,

<sup>&</sup>lt;sup>3</sup> U.S. General Accounting Office, "Mutual Fund Fees: Additional Disclosure Could Encourage Price Competition" (June 2000).



See Sean Collins, "The Expenses of Defined Benefit Pension Plans and Mutual Funds," *Perspective*, Vol. 9, No. 6, December 2003 (www.ici.org/pdf/per09-06.pdf); "Total Shareholder Cost of Mutual Funds: An Update," *Fundamentals*, Vol. 11, No. 4, September 2002 (www.ici.org/pdf/fm-v11n4.pdf); John D. Rea, Brian K. Reid, and Kimberlee W. Millar, "Operating Expense Ratios, Assets, and Economies of Scale in Equity Mutual Funds," *Perspective*, Vol. 5, No. 5, December 1999 (www.ici.org/pdf/per05-05.pdf); John D. Rea, Brian K. Reid, and Travis Lee, "Mutual Funds Funds Funds," *Perspective*, Vol. 5, No. 4, September 1999 (www.ici.org/pdf/per05-04.pdf); John D. Rea and Brian K. Reid, "Trends in the Ownership Cost of Equity Mutual Funds," *Perspective*, Vol. 4, No. 3, November 1998 (www.ici.org/pdf/per04-03.pdf).

<sup>&</sup>lt;sup>2</sup> Division of Investment Management, U.S. Securities and Exchange Commission, "Report on Mutual Fund Fees and Expenses" (December 2000).

figure 1

# Average Cost of Sales Loads and Expense Ratios Paid by Fund Shareholders, 1980–2002, Selected Years

(percent)

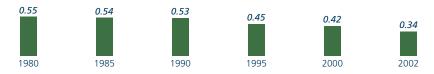
### Equity Funds<sup>2</sup>



#### **Bond Funds**



#### Money Market Funds



<sup>&</sup>lt;sup>1</sup>The average cost is a sales-weighted average of the expense ratio and the annuitized loads paid by shareholders.

sources: Investment Company Institute; Lipper, Inc.; Value Line Publishing, Inc.; CDA/Wiesenberger Investment Companies Service; © CRSP University of Chicago, Used with permission, all rights reserved (773.702.7467/www.crsp.com); Primary datasource & © Standard & Poor's Micropal, Inc. 1998 (617.451.1585/www.micropal.com); and Strategic Insight Mutual Fund Research and Consulting, LLC.

along with existing fund companies, have created thousands of new funds. Many of the newly created funds have remained small and therefore have not achieved the savings from scale economies that older, larger funds have experienced. This has resulted in an increase in the simple average fund expense ratio. Nevertheless, shareholders pay much lower expenses than those charged by the average fund because shareholders are predominantly invested in lower-than-average-cost funds.

This study analyzes the effects of these structural changes on fund expenses and presents a wide range of evidence showing that the sales loads and annual expenses borne by mutual fund shareholders have declined sharply during the past two decades (Figure 1).<sup>4</sup> It also provides a detailed analysis of the factors affecting fund expenses and presents new evidence that fees for operating individual funds decline as the funds grow in size.

# Why Total Expense Ratios Differ Across Mutual Funds

Industry analysts often lump together all mutual funds and draw inferences from the averages for all funds. However, there is a wide range of mutual funds available to investors and the variety of investment options contributes to significant differences in total expense ratios among funds. For example, bond and money market funds, on average, have lower expenses than equity funds. Most bond and money market funds have expense ratios under 1.50 percent, and just under half of all equity funds have annual expenses at or below this level (Figure 2).

<sup>&</sup>lt;sup>2</sup> Equity funds include hybrid funds.

<sup>&</sup>lt;sup>4</sup> The data sources used to compute mutual fund expenses and annuitized loads did not contain expense and load information for mutual funds held in variable annuities.

figure 2

Percent<sup>1</sup> of Mutual Fund Share Classes and Assets by Fund Type and Total Expense Ratio,

	Equity Funds <sup>2</sup>		Bond Funds		Money Market Funds	
Total Expense Ratio	Share Classes		Share Classes		Share Classes	Assets
<0.50	3	15	8	31	38	61
0.50 to 1.00	14	44	43	50	47	35
1.00 to 1.50	29	25	21	10	10	3
≥1.50	54	16	29	8	4	*

<sup>\*</sup>Less than 0.5 percent.

sources: Investment Company Institute; Lipper, Inc.; Strategic Insight Mutual Fund Research and Consulting, LLC.

In all three types of funds, shareholders pay much lower expense ratios than those charged by the average fund because shareholders tend to invest in lower-cost funds. Shareholders hold nearly 60 percent of their equity fund assets in funds with expense ratios under 1.00 percent. More than 80 percent of bond fund assets are in these lower-cost funds, as are virtually all money market fund assets.

In addition to a fund's investment objective, there are several other factors that account for differences in total expense ratios across funds. One factor is whether investors use brokers or other financial advisers when purchasing mutual fund shares. Using an adviser adds to a shareholder's cost of investing because of the additional service that the financial adviser is providing. Another factor is the size of a fund. Because there are scale economies to operating funds, small funds often have higher expense ratios than larger funds. Finally, funds with many small accounts have higher expense ratios than similarly sized funds with a few large accounts.

This section examines how the cost of receiving assistance from a financial adviser, investment styles, fund size, and average account size explain differences in expense ratios among funds.

### Costs Associated with Purchasing Fund Shares Through a Financial Adviser

Traditionally, mutual fund investors have purchased fund shares through financial advisers.<sup>5</sup> As of 2001, more than 70 percent of all shareholders who primarily buy funds outside a 401(k) or other employer-sponsored pension plan used a financial adviser as their main source for purchasing fund shares.<sup>6</sup> Financial advisers assist mutual fund shareholders in identifying investment goals, and in choosing funds to meet those goals given shareholders' risk preferences. Financial advisers also provide ongoing services by monitoring shareholders' investments, rebalancing assets across funds, providing quarterly statements, and filing tax reports.

<sup>&</sup>lt;sup>1</sup> Column percentages may not add to 100 percent because of rounding.

<sup>&</sup>lt;sup>2</sup> Equity funds include hybrid funds.

In 1975, 81 percent of all long-term fund sales were made through advisers (1976 Mutual Fund Fact Book, 15th Edition, Investment Company Institute, p. 69). In 1990, an estimated two-thirds of all long-term fund sales to households outside employer-sponsored pension plans were made through an adviser (2003 Mutual Fund Fact Book, 43rd Edition, Investment Company Institute, p. 38, www.ici.org/pdf/03fb\_ch3.pdf).

<sup>6 2001</sup> Profile of Mutual Fund Shareholders, Investment Company Institute, Fall 2001, p. 68 (www.ici.org/pdf/rpt\_profile01.pdf).

figure 3

Total 12b-1 Fees Paid as a Percent of Total Assets by Type of Mutual Fund and Share Class, 2002

(percent)

Share Class	Equity Funds <sup>3</sup>	Bond Funds	Money Market Funds
А	0.20	0.19	0.30
В	0.98	0.88	0.79
С	0.97	0.90	0.76
Other Load <sup>1</sup>	0.45	0.27	0.40
No-Load²	0.02	0.02	0.04

<sup>&</sup>lt;sup>1</sup>Load share classes not classifed as A, B, and C shares.

**sources:** Investment Company Institute; Lipper, Inc.; Strategic Insight Mutual Fund Research and Consulting, LLC.

Financial advisers are compensated for providing these additional services in one of two ways. First, shareholders can pay for them with sales loads and annual 12b-1 fees. Loads are not part of the total expense ratio because they are a one-time charge. The 12b-1 fees are included in the expense ratio and are one of the major factors contributing to the difference in expense ratios among funds. About one-third of the variation in equity fund expense ratios and three-quarters of the variation in bond fund expense ratios are due to 12b-1 fees.<sup>7</sup>

Alternatively, shareholders can pay their financial adviser directly through a fee-based program. The cost of this service to the fund shareholder averages between 1.0 and 1.2 percent of assets a year and is billed separately to the fund shareholder.8 There were about \$260 billion of mutual fund assets in these fee-based programs in 2002.9

The next section examines how shareholders compensate financial advisers using loads and 12b-1 fees.

### Paying for Advice Through Mutual Funds.

There are three main combinations of sales loads and 12b-1 fees used to compensate financial advisers. First, some fund share classes, known as A shares, charge a sales load at the time of purchase. These share classes also usually pay the financial advisers' firms a 12b-1 fee for providing ongoing advice and service to the funds' shareholders, with 82 percent of all A shares having 12b-1 fees under 0.30 percent. The 12b-1 fees collected on stock-fund A shares total 0.20 percent of stock-fund A-share assets (Figure 3).

The other two main types of share classes are commonly referred to as B and C shares. These share classes usually charge a combination of backend loads that are paid when investors redeem shares 10 and 12b-1 fees of between 0.75 and 1.00 percent of assets. The 12b-1 fees total 0.98 percent of stock-fund B-share assets and 0.97 percent of stock-fund C-share assets. With the 12b-1 fee, the cost of the advice that fund shareholders received when they purchased funds is spread out over several years. Hence, even if the fund is closed, shareholders continue to pay 12b-1 fees. These fees also pay for ongoing service that financial advisers provide to fund shareholders.

<sup>&</sup>lt;sup>2</sup> Share classes that have no front-end or back-end load and a 12b-1 fee of 0.25 percent or less.

<sup>&</sup>lt;sup>3</sup> Equity funds include hybrid funds.

<sup>&</sup>lt;sup>7</sup> In 2002, the variance for equity fund expense ratios is 0.68 and 0.46 when 12b-1 fees are excluded. For bond funds, the variance of the expense ratio is 0.25 and 0.06 without 12b-1 fees. For money funds, the variance in the expense ratio is 0.13 and 0.05 without 12b-1 fees.

<sup>&</sup>lt;sup>8</sup> Fee estimates provided by Cerulli Associates (Boston, MA).

<sup>&</sup>lt;sup>9</sup> Cerulli Quantitative Update: Intermediary Markets 2003, Cerulli Associates, (Boston, MA).

<sup>&</sup>lt;sup>10</sup> Back-end loads are distinct from redemption fees. Back-end loads are paid by shareholders who sell their shares in a fund and move the proceeds outside of the family of funds. This fee is paid to the distributor of the mutual fund to reimburse it for the payments that the distributor made to the shareholder's financial adviser at the time of the purchase. A redemption fee is a charge that some funds impose to discourage rapid trading of their funds' shares. These fees are paid directly to the fund to compensate the fund's long-term shareholders for the costs incurred as a result of shareholders moving money in and out of a fund.

B and C share classes rely more heavily on 12b-1 fees to compensate financial advisers, which is evident in their share of total 12b-1 fees paid. B shares make up only 6 percent of mutual fund assets and C shares another 2 percent, but together they account for more than half of all 12b-1 fees collected (Figure 4). A shares account for 22 percent of all fund assets and 29 percent of all 12b-1 fees collected.

Load and No-Load Funds. A, B, and C shares are all part of the group of fund share classes commonly referred to as load share classes.<sup>11</sup>
Load share classes are defined as any share class of a fund that charges a 12b-1 fee greater than 25 basis points or that has a front-end or back-end load. No-load funds are those funds that have no front-end or back-end loads and that have 12b-1 fees of 25 basis points or less.

Shareholders of no-load funds either do not receive advice and service from a financial adviser when purchasing these funds or, as noted above, pay the adviser directly for this advice. The 12b-1 fees that they collect are relatively modest and generally are used to pay third parties, such as fund supermarkets or administrators of employer-sponsored pension plans, for the services that they provide to fund shareholders.

Because many fund shareholders prefer to use financial advisers when buying funds outside employer-sponsored retirement plans, nearly two-thirds of the equity and bond fund share classes are load classes that are sold to these investors (Figure 5). Load share classes also outnumber no-load classes because many funds that primarily sell through financial advisers offer their shareholders the A, B, and C share class options. Most single share class funds are no-load.<sup>12</sup>

figure 4

### 12b-1 Fees Paid by Type of Share Class, 2002

hare Class	Amount (billions)	Share of Total (percent)
А	\$2.6	29
В	3.4	38
С	1.3	14
Other Load¹	0.6	7
No-Load <sup>2</sup>	1.1	12
Total	9.0	100

<sup>&</sup>lt;sup>1</sup>Load share classes not classified as A, B, or C shares.

figure 5

### Percent of Share Classes by Type of Share Class, 2002

	Equity Funds <sup>3</sup>	<b>Bond Funds</b>	Money Market Funds
Load	63	65	18
A Shares	22	25	2
B Shares	19	19	5
C Shares	17	16	4
Other Load¹	5	4	7
No-Load <sup>2</sup>	37	35	82

<sup>&</sup>lt;sup>1</sup>Load share classes not classifed as A, B, and C shares.

**sources:** Investment Company Institute; Lipper, Inc.; Strategic Insight Mutual Fund Research and Consulting, LLC.

<sup>&</sup>lt;sup>2</sup> Share classes that have no front-end or back-end load and a 12b-1 fee of 0.25 percent or less.

**sources:** Investment Company Institute; Lipper, Inc.; Strategic Insight Mutual Fund Research and Consulting, LLC.

<sup>&</sup>lt;sup>2</sup> Share classes that have no front-end or back-end load and a 12b-1 fee of 0.25 percent or less.

<sup>&</sup>lt;sup>3</sup> Equity funds include hybrid funds.

<sup>&</sup>lt;sup>11</sup> For a more in-depth description of load structures, see Brian K. Reid and John D. Rea, "Mutual Fund Distribution Channels and Distribution Costs," *Perspective*, Vol. 9, No. 3, July 2003 (www.ici.org/pdf/per09-05.pdf).

<sup>&</sup>lt;sup>12</sup> In 2002, 86 percent of single share class funds were no-load.

figure 6

Percent of Mutual Fund Share Classes by Load Structure and Expense Ratio, 2002

No-	No-Load <sup>1</sup>		Load			
No 12b-1 Fee	12b-1 Fee ≤ 25 bps.	12b-1 Fee ≤ 30 bps.			Total³	
	Percent	of Equity Fund Sha	are Classes <sup>2</sup>			
70	28	2	0	0	100	
74	8	15	2	0	100	
45	11	34	7	3	100	
8	4	14	8	65	100	
	Percen	t of Bond Fund Sha	ire Classes			
75	20	5	0	0	100	
49	8	41	2	0	100	
9	7	32	30	24	100	
1	0	2	3	94	100	
	Percent of	Money Market Fund	d Share Classe	es		
79	19	1	0	0	100	
54	33	4	9	1	100	
6	29	4	28	33	100	
0	0	0	3	97	100	
	No 12b-1 Fee  70 74 45 8  75 49 9 1 1  79 54 6	No     12b-1 Fee       12b-1 Fee     ≤ 25 bps.       Percent       70     28       74     8       45     11       8     4       Percen       75     20       49     8       9     7       1     0       Percent of I       79     19       54     33       6     29	No     12b-1 Fee     12b-1 Fee       12b-1 Fee     ≤ 25 bps.     ≤ 30 bps.       Percent of Equity Fund Shares       70     28     2       74     8     15       45     11     34       8     4     14       Percent of Bond Fund Shares       75     20     5       49     8     41       9     7     32       1     0     2       Percent of Money Market Fund       79     19     1       54     33     4       6     29     4	No 12b-1 Fee 12b-1 Fee ≤ 25 bps.     12b-1 Fee ≤ 30 bps.     12b-1 Fee 31-70 bps.       Percent of Equity Fund Share Classes²       70     28     2     0       74     8     15     2       45     11     34     7       8     4     14     8       Percent of Bond Fund Share Classes       75     20     5     0       49     8     41     2       9     7     32     30       1     0     2     3       Percent of Money Market Fund Share Classe       79     19     1     0       54     33     4     9       6     29     4     28	No 12b-1 Fee 12b-1 Fee 12b-1 Fee 12b-1 Fee ≤ 25 bps.     12b-1 Fee ≤ 30 bps.     12b-1 Fee 31-70 bps.     12b-1 Fee 71-100 bps.       Percent of Equity Fund Share Classes²       70     28     2     0     0       74     8     15     2     0       45     11     34     7     3       8     4     14     8     65       Percent of Bond Fund Share Classes       75     20     5     0     0       49     8     41     2     0       9     7     32     30     24       1     0     2     3     94       Percent of Money Market Fund Share Classes       79     19     1     0     0       54     33     4     9     1       6     29     4     28     33	

<sup>&</sup>lt;sup>1</sup> Share classes that have no front-end or back-end load and a 12b-1 fee of 0.25 percent or less.

sources: Investment Company Institute; Lipper, Inc.; Strategic Insight Mutual Fund Research and Consulting, LLC.

Total expense ratios on load share classes tend to be higher than on no-load share classes because of the 12b-1 fees used to compensate financial advisers. No-load share classes account for most of the fund share classes with total expense ratios less than 0.50 percent (Figure 6). Load share classes with the lowest 12b-1 fees, such as A shares, are also more likely to have lower expense ratios because the cost of the one-time sales load is not part of the annual expense ratio. Most of the share classes with expense ratios above 1.50 percent are share classes with 12b-1 fees greater than 70 basis points, such as B and C shares.

12b-1 Fees and Closed Funds. Several analysts have observed that some funds continue to charge 12b-1 fees after they are closed to new investors. These analysts have concluded that the shareholders of these funds are being unfairly charged for the marketing of funds that are no longer open to new investors. This conclusion hinges on the assumption that 12b-1 fees are largely used to market the fund. In fact, virtually all 12b-1 fees are used to compensate financial advisers for service provided to fund shareholders at the time of the purchase of fund shares or for administrative and advice services provided to the shareholder after the initial purchase. 14

<sup>&</sup>lt;sup>2</sup> Equity funds include hybrid funds.

<sup>&</sup>lt;sup>3</sup> Row percentages may not add to 100 because of rounding.

<sup>&</sup>lt;sup>13</sup> See Albert Crenshaw, "The Fees That Make You Keep on Giving," *The Washington Post,* January 11, 2004, p. F8 and Standard & Poor's Press Release, "S&P Releases Updated Data on Closed Funds Still Charging 12b-1 Fees," December 16, 2003.

<sup>14</sup> See Reid and Rea (July 2003) p. 19.

Most of the closed funds charging 12b-1 fees are load funds whose 12b-1 fees are used to compensate financial advisers for past service or for ongoing administrative services provided to fund shareholders. For instance, in November 2003, 78 percent of the closed share classes with 12b-1 fees were load share classes (Figure 7).<sup>15</sup> Another 9 percent of the share classes were no-load adviser share classes that pay a 0.25 percent 12b-1 fee for services provided by financial advisers, mutual fund supermarkets, employer-sponsored pension plans, and other third parties providing ongoing services to fund shareholders.

The remaining 29 share classes, accounting for 14 percent of the closed share classes with 12b-1 fees, were also no-load. Within these, 26 share classes, while closed to new investors wanting to directly invest with the funds, remained open to existing investors and to new investors through wrap accounts, fee-based advisory programs, or employer-sponsored pension plans. Two of the remaining three funds have since eliminated or waived their 12b-1 fees.

### Costs of Operating and Managing a Fund

The expenses used to operate and manage funds can be computed by subtracting the 12b-1 fee from the expense ratio. These annual operating expenses are less than 1.50 percent for most equity funds (Figure 8). Virtually all bond and money market funds have operating expense ratios of less than 1.50 percent. Most assets are in funds with operating expense ratios under 1.00 percent. Fund investment style, fund size, and average account size all contribute to the operating expenses of a fund.

figure 7
Funds Closed to Investors with a 12b-1 Fee, November 2003

Share Class	Number of Closed Share Classes	Percent of Closed Share Classes
A Shares	23	11
B Shares	42	19
C Shares	52	24
Other Load Shares <sup>1</sup>	52	24
Subtotal Load Shares	169	78
No-Load Shares <sup>2</sup> Sold Through Advisers	and	
Retirement Plans	19	9
No-Load <sup>2</sup>	29	14
Total	217	100

<sup>&</sup>lt;sup>1</sup> Load share classes not classified as A, B, or C shares

figure 8

Percent of Share Classes and Assets by Annual Operating Expense Ratio, 2002

Operating Expense Ratio	Equity Funds <sup>1</sup>		Bond Fun	Bond Funds		t Funds
	Share Classes	Assets	Share Classes	Assets	Share Classes	Assets
<0.50	4	23	13	38	51	72
0.50 to 1.00	27	53	76	59	48	28
1.00 to 1.50	49	22	10	3	1	0
≥1.50	19	3	1	0	0	0
Total <sup>2</sup>	100	100	100	100	100	100

<sup>&</sup>lt;sup>1</sup> Equity funds include hybrid funds.

sources: Investment Company Institute; Lipper, Inc.; Strategic Insight Mutual Fund Research and Consulting, LLC.

<sup>&</sup>lt;sup>2</sup> Share classes that have no front-end or back-end load and a 12b-1 fee of 0.25 percent or less. sources: Morningstar® Principia® Pro Plus, November 2003, and Investment Company Institute.

<sup>&</sup>lt;sup>2</sup> Column percentages may not add to 100 because of rounding.

<sup>&</sup>lt;sup>15</sup> Data were obtained from the Morningstar® Principia® Pro Plus, November 2003.

figure 9
Simple-Average¹ Operating Expense Ratios by Fund Size and Investment Objective, 2002
(percent)

Fund Size	Equity Funds <sup>2</sup>							
	Large-Cap and General Domestic	Small-Cap Domestic	Sector	International	Hybrid	All		
<\$50 million	1.37	1.39	1.62	1.69	1.28	1.47		
\$50 to 100 million	1.07	1.26	1.39	1.40	0.99	1.19		
\$100 to 250 million	1.10	1.26	1.30	1.41	1.03	1.19		
\$250 to 500 million	0.99	1.11	1.22	1.25	0.95	1.07		
\$500 to 1,000 million	0.97	1.06	1.13	1.21	0.87	1.03		
≥\$1 billion	0.79	0.96	0.95	1.03	0.78	0.84		
All	1.10	1.23	1.38	1.46	1.03	1.21		

### **Bond Funds**

	U.S. Government and Mortgage- Backed	Corporate and General	Global	High-Yield	Municipal Bond	All
<\$50 million	0.88	0.78	0.99	0.96	0.69	0.77
\$50 to 100 million	0.66	0.67	0.91	0.82	0.68	0.70
\$100 to 250 million	0.67	0.68	0.94	0.84	0.66	0.69
\$250 to 500 million	0.61	0.70	0.87	0.87	0.62	0.67
\$500 to 1,000 million	0.64	0.63	0.62	0.91	0.59	0.64
≥\$1 billion	0.58	0.63	*	0.75	0.48	0.57
All	0.67	0.69	0.92	0.86	0.64	0.68

### **Money Market Funds**

	Government-Taxable	General-Taxable	Tax-Exempt	All
<\$50 million	0.55	0.66	0.74	0.68
\$50 to 100 million	0.55	0.59	0.60	0.58
\$100 to 250 million	0.51	0.55	0.54	0.53
\$250 to 500 million	0.51	0.53	0.53	0.53
\$500 to 1,000 million	0.50	0.55	0.49	0.51
≥\$1 billion	0.40	0.44	0.41	0.42
All	0.47	0.50	0.53	0.51

<sup>&</sup>lt;sup>1</sup> Simple averages are fund-level operating expense ratios. Fund-level operating expense ratios are computed as an asset-weighted average of operating expense ratios of each fund's share classes.

sources: Investment Company Institute; Lipper, Inc.; Strategic Insight Mutual Fund Research and Consulting, LLC.

Fund Investment Style. As noted by the SEC, 16 the investment style of a fund is one of the most important factors affecting its operating expense ratio. Portfolios and investments of certain types of funds are more costly to run because their investment style requires more research and

operational expense (Figure 9). In particular, bond and money market funds are less expensive than many types of equity funds. Among bond and money market funds, those investing in U.S. government and agency securities have the lowest expense ratios.

<sup>&</sup>lt;sup>2</sup> Equity funds include hybrid funds.

<sup>\*</sup> Fewer than five funds.

<sup>&</sup>lt;sup>16</sup> U.S. Securities and Exchange Commission (December 2000).

Among equity funds, international funds often have higher research costs than similarly sized domestic equity funds. Within the domestic equity fund category, small-cap and sector funds are generally more expensive to manage and operate than similarly sized large-cap and general stock funds. Hybrid funds, which hold a mixture of stocks and bonds, tend to have lower expense ratios than other types of stock funds.

Fund Size. Fund size is also important in determining a fund's operating expenses, as noted by the SEC.<sup>17</sup> On average, as assets increase, the operating expense ratios of funds tend to decrease across all types of investment objectives, showing that fund expenses reflect scale economies (Figure 9). The decline in expense ratios reflects scale efficiencies and certain quasi-fixed costs of running mutual funds, including expenses for accounting, legal, and daily pricing services of the fund. Small funds tend to have higher operating expense ratios because they have fewer assets over which to spread these costs. Some sponsors of smaller funds waive a portion of these expenses to make them more competitive with larger funds.

Average Account Size. Shareholders pay more for the operation of funds that have small average account balances than do shareholders in funds with large average account balances. For example, suppose that there are two identical funds each

figure 10

# Simple-Average Operating Expense Ratio by Average Account Size and Fund Type, 2002

(percent)

Equity Funds¹							
Average Account Size	Domestic Equity	Foreign Equity	Bond Funds	Money Market Funds			
<\$10,000	1.37	1.67	0.84	0.63			
\$10,000 to 50,000	1.12	1.45	0.75	0.62			
\$50,000 to 100,000	1.11	1.33	0.64	0.55			
≥\$100,000	0.97	1.19	0.63	0.44			

<sup>&</sup>lt;sup>1</sup> Equity funds include hybrid funds.

**sources:** Investment Company Institute; Lipper, Inc.; Strategic Insight Mutual Fund Research and Consulting, LLC.

with \$100 million in assets. One fund has 100 accounts and an average account size of \$1 million. The other has 100,000 accounts with an average account size of \$1,000. The fund with the large number of small accounts will be more expensive to operate because of the added expense of providing services to the additional accounts. The correlation between average account size and expense of managing the fund is more than theoretical. In practice, funds with large average account sizes have lower operating expense ratios than funds with small average account sizes (Figure 10).

<sup>&</sup>lt;sup>17</sup> U.S. Securities and Exchange Commission (December 2000).

figure 11

Median Fund Size and Account Size by Operating Expense Ratio and Investment
Objective, 2002

	Don	nestic Equity	Funds <sup>1</sup>	International Equity Funds <sup>1</sup>		
Operating Expense Ratio <sup>2</sup>	Number of Funds	Median Fund Size (millions)	Median Fund's Average Account Size	Number of Funds	Median Fund Size (millions)	Median Fund's Average Account Size
<0.50	188	\$403	\$52,415	14	\$230	\$395,499
0.50 to 1.00	881	318	30,342	96	211	90,323
≥1.00	1,781	81	18,139	601	65	15,485

		Bond Funds			Money Market Funds			
	Number of Funds	Median Fund Size (millions)	Median Fund's Average Account Size	Number of Funds	Median Fund Size (millions)	Median Fund's Average Account Size		
<0.50	305	\$218	\$96,844	422	\$911	\$1,181,103		
0.50 to 1.00	1,239	162	56,557	431	392	87,008		
≥1.00	136	55	22,650	8	52	14,310		

<sup>&</sup>lt;sup>1</sup> Equity funds include hybrid funds.

Summary. Factoring in investment style, fund size, and average account size, lower-expense funds tend to have more assets and larger average account balances than higher-expense funds (Figure 11). Among domestic equity funds, the lowest cost funds had a median size of \$403 million in 2002 compared with \$81 million for the highest cost funds. Average account sizes also are much larger for the lowest cost funds. Bond, money market, and international equity funds show similar patterns.

### Trends in Mutual Funds' Average Expense Ratios

Comparing total expense ratios of mutual funds over time can be difficult because the fund industry has changed appreciably in the past several decades. There are several factors in particular that make simple comparisons of fund expense ratios over time difficult. First, the industry is much larger than in 1980 when there were fewer than 600 mutual funds managing \$135 billion in assets. By 2002, there were more than 8,000 funds with 19,000 share classes managing nearly \$7 trillion in assets. Second, the variety of funds available expanded as fund sponsors provided a much broader range of investment styles than before to meet investor demand. Third, shareholders receive a higher level of service from their fund companies than they did in the early 1980s.

<sup>&</sup>lt;sup>2</sup> Operating expense ratios are computed for each fund as an asset-weighted average of the operating expense ratio of each share class in the fund. **sources:** Investment Company Institute; Lipper, Inc.; Strategic Insight Mutual Fund Research and Consulting, LLC.

Possibly the biggest mistake that many analysts make is to ignore changes in how shareholders compensate financial advisers for their services, as has been pointed out by the SEC.18 Because fund expense ratios do not include loads, using only the expense ratio to measure costs incurred by fund shareholders leads to the mistaken impression that the average cost of mutual funds has gone up. During the past two decades, shareholders have reduced their reliance on front-end loads for compensating financial advisers, and fund companies have offered alternative share classes that allow shareholders to pay for advice over time using annual 12b-1 fees. This change caused the average expense ratio to rise for bond and stock funds even though broader measures of costs that include loads fell.

Ignoring these changes in the industry has led some industry analysts to incorrectly conclude that funds are not passing on to shareholders the savings achieved through scale economies because the simple average expense ratio rose for stock and bond funds between 1980 and 2002 (Figure 12).19 This section explains that the simple-average total expense ratio has risen because of structural changes, and that the upward trend in the simple average does not imply the absence of scale economies. Rather, the increase reflects a shift in payment for distribution from sales loads to 12b-1 fees, the shift in demand toward investment styles that are more expensive to implement, and the growth in the number of new funds. This section also presents evidence that as individual funds grow in size, scale efficiencies are passed through to shareholders in the form of lower expense ratios.

### figure 12

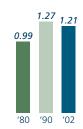
# Simple Averages¹ of Equity, Bond, and Money Market Fund Expense Ratios

(percent)

### Equity Funds<sup>2</sup>







Simple-Average Operating Expense Ratio

#### **Bond Funds**



Simple-Average Expense Ratio



Simple-Average Operating Expense Ratio

#### Money Market Funds



Simple-Average Expense Ratio



Simple-Average Operating Expense Ratio

sources: Investment Company Institute; Lipper, Inc.; Value Line Publishing, Inc.; CDA/Wiesenberger Investment Companies Service; © CRSP University of Chicago, Used with permission, all rights reserved (773.702.7467/www.crsp.com); Primary datasource & © Standard & Poor's Micropal, Inc. 1998 (617.451.1585/www.micropal.com); and Strategic Insight Mutual Fund Research and Consulting, LLC.

<sup>&</sup>lt;sup>1</sup> Simple averages of share class expense and operating expense ratios.

<sup>&</sup>lt;sup>2</sup> Equity funds include hybrid funds.

<sup>&</sup>lt;sup>18</sup> U.S. Securities and Exchange Commission (December 2000).

For example, see Statement of John C. Bogle Before the U.S. House of Representatives Sub-Committee on Capital Markets, Insurance and Government Sponsored Enterprises of the Committee on Financial Services (March 12, 2003), p. 1. Bogle states that the "expense ratio of the average mutual fund has risen." This statement is misleading. The simple average expense ratio has risen for the industry, but this does not mean that the average fund has increased its expense ratio. As noted below, the simple average expense ratio has risen because of the creation small new funds, introduction of share classes that rely on 12b-1 fees to compensate financial advisers, and because of the changes in the types of funds offered, not because the typical fund increased its expense ratio.

figure 13

Simple-Average Maximum Front-End Load and 12b-1 Fee on Equity and Bond Funds with Front-End Loads, 1980-2002 (percent)

	Equity F	unds¹	Bond I	unds
Year	Front-End Load	12b-1 Fee	Front-End Load	12b-1 Fee
1980	7.89	0.00	6.35	0.00
1981	7.89	0.00	6.19	0.00
1982	7.85	0.00	6.04	0.00
1983	7.76	0.01	6.00	0.00
1984	7.64	0.02	5.65	0.01
1985	7.52	0.03	5.47	0.02
1986	7.10	0.05	5.20	0.05
1987	6.56	0.08	4.94	0.08
1988	6.00	0.12	4.75	0.13
1989	5.57	0.13	4.64	0.14
1990	5.29	0.14	4.56	0.13
1991	5.07	0.14	4.51	0.14
1992	4.92	0.15	4.29	0.15
1993	4.84	0.16	4.24	0.14
1994	4.79	0.18	4.13	0.15
1995	4.77	0.19	4.10	0.17
1996	4.80	0.19	4.11	0.17
1997	4.91	0.20	4.16	0.17
1998	4.97	0.20	4.20	0.17
1999	5.04	0.22	4.16	0.18
2000	5.16	0.22	4.16	0.18
2001	5.20	0.23	4.21	0.19
2002	5.17	0.23	4.20	0.19

<sup>&</sup>lt;sup>1</sup> Equity funds include hybrid funds.

sources: Investment Company Institute; Lipper, Inc.; Value Line Publishing, Inc.; CDA/Wiesenberger Investment Companies Service; © CRSP University of Chicago, Used with permission, all rights reserved (773.702.7467/www.crsp.com); Primary datasource & © Standard & Poor's Micropal, Inc. 1998 (617.451.1585/www.micropal.com); and Strategic Insight Mutual Fund Research and Consulting, LLC.

### Changes in How Shareholders Pay Sales Charges

Some analysts have commented on trends in the average expense ratios without examining how changes in compensating financial advisers have affected these ratios.20 Two fundamental changes in the way individuals pay for the services of financial advisers account for most of the increase in the average expense ratio of mutual funds.

First, the average front-end load is much lower than in the early 1980s, as funds have relied more heavily on 12b-1 fees to compensate financial advisers (Figure 13). This development has caused broad measures of fund expenses that comprise loads and total expense ratios to fall even while the narrower expense ratio rose.

For example, the advent of multi-class funds in the late 1980s is a structural change that often is not considered when calculating the simple-average expense ratio. For every A share class, funds will typically offer B and C share classes with 12b-1 fees of between 75 and 100 basis points to provide shareholders with alternatives to using a front-end load to pay for advice and service. The introduction of these new B and C share classes in the 1990s contributed to the increase in the average expense ratio, even though many existing funds' expense ratios were declining.

The increased presence of funds with 12b-1 fees and decreased reliance on sales loads accounted for two-thirds of the increase in the simple-average expense ratio for equity funds and all of the increase in the average expense ratio for bond funds.

<sup>&</sup>lt;sup>20</sup> See for example, Roy Weitz, *Highlights and Commentary*. FundAlarm, November 1, 2002; Remarks by John C. Bogle at the Harvard Business School Association of Boston and the Boston Security Analysts Society, pp. 9-10, January 14, 2003; Statement of John C. Bogle (March 12, 2003) pp. 1-2; Timothy Middleton, "The Real Wall Street Rip-off? Fat Fund Fees," Moneycentral.msn.com, September 16, 2003.

Because annual total expense ratios do not include loads, using only the expense ratio to measure the costs incurred by fund shareholders leads to a mistaken impression of the true trend in the average purchase cost of mutual funds. Removing 12b-1 fees from expense ratios removes the bias inherent in examining expense ratios at the exclusion of load costs and focuses on the cost of operating mutual funds. Simple averages of operating expense ratios have declined by 16 percent for bond funds and 25 percent for money market funds between 1980 and 2002 (Figure 12). Simple averages of operating expenses rose between 1980 and 1990 for equity funds, but fell after 1990.

### Operating Expense Ratios for Equity Funds

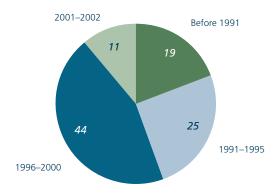
Average operating expense ratios can be affected over time by a variety of factors, especially the introduction of new funds. These new funds can change the asset mix over time and can obscure savings passed through to shareholders as older funds grow in size. For example, the number of equity funds rose from 288 to 4,756 between 1980 and 2002. In 1980, 6 percent of these funds were international or sector funds compared with 30 percent of equity funds in 2002. The increased presence of these higher-cost funds contributed to the rise in the average expense ratio.

Many of the new funds were created in the 1990s, making it difficult to see the influence of scale economies on average expense ratios. In 2002, 81 percent of all equity funds had been created after 1990 (Figure 14). These newer funds on average are considerably smaller than older funds. For example, equity funds created before 1991 had average net assets of \$1.9 billion in December 2002, while the average for those

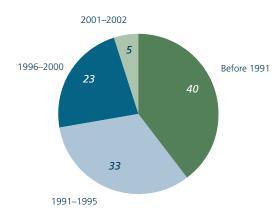
figure 14

# Percent of Equity, Bond, and Money Market Funds by Year of Inception

Equity Funds<sup>1</sup>



#### **Bond Funds**



### Money Market Funds



<sup>&</sup>lt;sup>1</sup> Equity funds include hybrid funds.

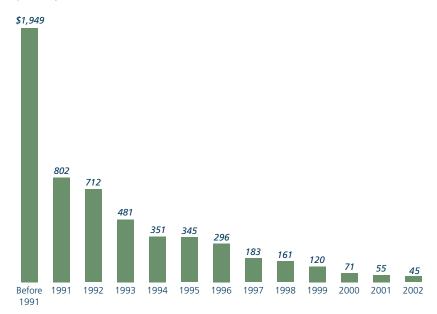
note: Percentages may not add to 100 because of rounding.

source: Investment Company Institute.

figure 15

Average Equity Fund<sup>1</sup> Size at Year-End 2002 by Year of Inception

(millions)



<sup>&</sup>lt;sup>1</sup> Equity funds include hybrid funds. **source:** Investment Company Institute.

created after 1990 was smaller (Figure 15). For example, funds formed in 1991 had an average size of \$802 million. For subsequent years, the average declines steadily, reaching \$45 million for those introduced in 2002. The creation of many small new funds obscured the influence of economies of scale in industry-average expense ratios.

One way of controlling for the effect of new funds is to examine expense ratios for a consistent group of funds. One such group consists of those share classes that existed from 1990 through 2002. For this group of fund share classes, the average operating expense ratio fell from 1.19 percent in 1990 to 1.04 percent in 2002 (Figure 16). On average, the share classes grew larger over this period and their average account size increased. These sources of scale efficiencies contributed to the downward movement in the average operating expense ratio. Average operating expense ratios did edge up in 2001 and 2002, amid the 2000–2002 bear market, when assets and average account sizes for most funds fell sharply.

A similar downward trend in operating expense ratios can be observed for stock fund share classes that existed between 1995 and 2002.<sup>23</sup> As these share classes grew in size and average account balances rose, their operating expense ratios fell, indicating that funds were passing through cost savings from scale economies. This group of funds includes many smaller new funds created from 1991 through 1995, and demonstrates that even small new funds pass along cost savings as they grow.

<sup>&</sup>lt;sup>21</sup> This methodology has been used in several studies in recent years. For example, see General Accounting Office (June 2000).

<sup>&</sup>lt;sup>22</sup> This consistent group contains 669 share classes and accounted for 56 percent of the stock fund assets in 2002.

<sup>&</sup>lt;sup>23</sup> This consistent group contains 2,285 share classes and accounted for 79 percent of the stock fund assets in 2002.

figure 16

# Assets, Accounts, and Average Operating Expense Ratios for a Consistent Grouping of Equity Fund Share Classes, 1990–2002 and 1995–2002

Consistent Grouping, 1990–2002

	Assets	Assets Accounts	Average	Number of Share	Average Share Class Size (billions)	Simple-Average Operating Expense Ratio (percent)		
Year	(billions)	(millions)	Account Size	Classes		All Funds	Load	No-Load <sup>2</sup>
1990	\$223	21.5	\$10,366	669	\$0.33	1.19	1.24	1.12
1991	255	24.6	10,384	669	0.38	1.19	1.24	1.10
1992	346	28.9	11,991	669	0.52	1.15	1.20	1.06
1993	470	35.4	13,291	669	0.70	1.10	1.14	1.02
1994	605	46.7	12,960	669	0.90	1.07	1.11	1.00
1995	723	56.9	12,704	669	1.08	1.06	1.11	0.99
1996	963	66.5	14,488	669	1.44	1.02	1.05	0.98
1997	1,246	73.7	16,904	669	1.86	1.00	1.03	0.96
1998	1,557	81.3	19,158	669	2.33	0.98	1.00	0.95
1999	1,813	90.3	20,067	669	2.71	0.98	1.00	0.96
2000	2,150	94.5	22,758	669	3.21	0.98	0.98	0.97
2001	1,779	94.9	18,753	669	2.66	1.00	1.01	1.00
2002	1,507	93.7	16,073	669	2.25	1.04	1.05	1.03

### Consistent Grouping, 1995–2002

	Assets Account		Average	Number of Share	Average Share Class Size	Simple-Average Operating Expense Ratio (percent)		
Year	(billions)	(millions)	Account Size	Classes	(billions)	All Funds	Load	No-Load <sup>2</sup>
1995	\$891	69.6	\$12,793	2,285	\$0.39	1.15	1.20	1.06
1996	1,225	84.4	14,509	2,285	0.54	1.13	1.17	1.05
1997	1,639	98.8	16,584	2,285	0.72	1.10	1.14	1.03
1998	2,099	111.4	18,840	2,285	0.92	1.08	1.12	1.02
1999	2,485	127.4	19,501	2,285	1.09	1.07	1.11	1.02
2000	3,076	138.7	22,182	2,285	1.35	1.06	1.08	1.01
2001	2,528	137.6	18,377	2,285	1.11	1.09	1.12	1.03
2002	2,119	134.9	15,705	2,285	0.93	1.13	1.18	1.06

<sup>&</sup>lt;sup>1</sup> Equity funds include hybrid funds.

sources: Investment Company Institute; Lipper, Inc.; Strategic Insight Mutual Fund Research and Consulting, LLC.

<sup>&</sup>lt;sup>2</sup> Share classes that have no front-end or back-end load and a 12b-1 fee of 0.25 percent or less.

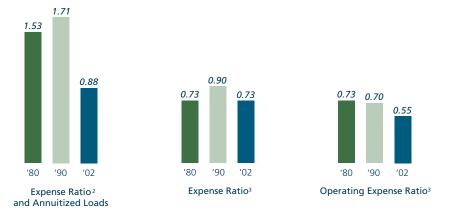
figure 17

# Average Sales Loads and Expense Ratios Paid by Fund Shareholders, 1980, 1990, and 2002 (percent)

### Equity Funds<sup>1</sup>



#### **Bond Funds**



### **Money Market Funds**



<sup>&</sup>lt;sup>1</sup> Equity funds include hybrid funds.

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<sup>&</sup>lt;sup>2</sup> Sales-weighted average.

<sup>&</sup>lt;sup>3</sup> Asset-weighted average.

# Trends in Costs Paid by Mutual Fund Shareholders

Industry analysts often use the simple-average fund expense ratio to make inferences about how much shareholders are paying to invest in mutual funds.<sup>24</sup> There are two flaws in this methodology. First, as already discussed, many fund shareholders use financial advisers when investing in mutual funds and therefore pay sales loads in addition to the annual expense ratio. These loads need to be considered when examining the costs borne by fund shareholders over time. Second, fund assets are concentrated in lower-cost funds, so the expense ratio of the average fund significantly overstates the true costs borne by shareholders. To measure the cost incurred by fund shareholders, analysts should take into consideration which funds shareholders invest in.

ICI research has included annuitized loads and sales charges in cost measures and, because loads are incurred on the purchase amount, ICI has used sales-weighted averages to measure the actual costs incurred by shareholders when purchasing shares. These averages measure the actual cost incurred by new investors in fund shares. Alternatively, if only total annual expense ratios are being used, these expenses can be weighted by the assets of funds. This average reflects the cost borne by the typical dollar invested in a mutual fund. Asset-weighted and sales-weighted averages produce similar results because funds with large amounts of assets typically also have the largest amount of new sales.

This section discusses trends in the average sales loads and fund expenses paid by fund shareholders.

<sup>&</sup>lt;sup>24</sup> See, for example, Gregory Baer and Gary Gensler, *The Great Mutual Fund Trap*, Broadway Books, New York (2002) p. 102. They write "... the Investment Company Institute (ICI), the trade group for the mutual fund industry, said that the simple average of fees equals approximately 1.52 percent. So, if you invest in an actively managed equity mutual fund, you will probably pay an average annual management fee somewhere around 1.3 to 1.6 percent of the value of your investment." See also Susan Woodward, "Make Mutual Funds Bare All," *The Wall Street Journal*, January 16, 2004, p. A10. She writes, "As more people must make their own investment choices, the average level of investing experience declines. It's no surprise that average fund expenses have been rising, not falling ... [I]nvestors fail to select funds with low expenses."

figure 18

Sales-Weighted Average Load Charges¹ Incurred by Buyers of Equity and Bond Funds, 1980–2002, Selected Years (percent)

#### Equity Funds<sup>2</sup>



#### **Bond Funds**



<sup>&</sup>lt;sup>1</sup>Load charges are amortized and include load waivers. Sales-weighted load charges include sales of load and no-load share classes.

sources: Investment Company Institute; Lipper, Inc.; Value Line Publishing, Inc.; CDA/Wiesenberger Investment Companies Service; © CRSP University of Chicago, Used with permission, all rights reserved (773.702.7467/www.crsp.com); Primary datasource & © Standard & Poor's Micropal, Inc. 1998 (617.451.1585/www.micropal.com); and Strategic Insight Mutual Fund Research and Consulting, LLC.

### Actual Sales Loads and Expenses Incurred by Shareholders

Because sales loads and 12b-1 fees are used for compensating financial advisers and other third parties for additional services provided to fund shareholders, ICI research has been based on a broader measure of fees and expenses that includes annuitized loads to measure trends in mutual fund costs. This broader measure of costs is conceptually similar to the cost information that the SEC requires funds to provide to shareholders in the prospectus and to the SEC's mutual fund cost calculator. This measurement technique is also similar to those used in academic studies measuring fund fees and expenses. Finally, many of the biases inherent in using only the expense ratio are eliminated by factoring in loads.

This broader measure of fund expenses that includes annuitized loads and expense ratios has been trending lower for more than two decades (Figure 17).<sup>28</sup> On average, the combined loads and expense ratios incurred by fund shareholders buying an equity fund in 2002 equaled 1.25 percent of the value of the shares purchased, down from 2.26 percent in 1980, a 45 percent decline. The cost incurred when buying a bond fund has dropped 42 percent over this same period and has fallen 38 percent for money market funds.

The decline in the actual average costs paid by shareholders buying equity and bond funds has occurred in large part because shareholders pay much lower load costs than in 1980. The average annuitized sales load paid by shareholders declined 88 percent on equity funds and 82 percent for bond funds between 1980 and 2002 (Figure 18).

<sup>&</sup>lt;sup>2</sup> Equity funds include hybrid funds.

<sup>25</sup> See Rea and Reid (November 1998) for an explanation of the calculation used to amortize loads. Load waivers are also factored into the calculation.

<sup>&</sup>lt;sup>26</sup> The SEC's mutual fund cost calculator is available online at www.sec.gov/investor/tools/mfcc/mfcc-int.htm.

<sup>&</sup>lt;sup>27</sup> The measure of costs is similar to the cost concept used by Erik R. Sirri and Peter Tufano in "Competition and Change in the Mutual Fund Industry," *Financial Services: Perspectives and Challenges*, ed. Samuel L. Hayes, III. Boston: Harvard Business School Press, 1993, pp. 199–202.

<sup>&</sup>lt;sup>28</sup> See U.S. Securities and Exchange Commission (December 2000) and Rea and Reid (November 1998).

The average cost of loads has declined for several reasons. First, average maximum front-end loads dropped 40 percent during this period. The average maximum load charge for bond and equity share classes with front-end loads was 4.5 percent in 2002. Nearly all funds with front-end loads charged a maximum load of less than 6 percent in 2002 (Figure 19). In 1980, the average front-end load was 7.4 percent, with 60 percent of the funds charging 8.00 percent or more.

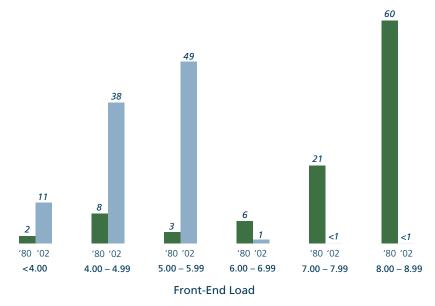
Second, a larger portion of front-end loads are waived today than in the early 1980s (Figure 20). Actual loads collected on share classes with front-end loads total less than 25 percent of their maximum, down from 70 percent in 1982. The size of waivers has risen because share classes with front-end loads are often sold to 401(k) and other retirement plans with their loads waived. In addition, breakpoint levels are little changed from the early 1980s, and a larger portion of the new sales are eligible for such breakpoints.

The third reason that actual load costs have declined is that fund sales have shifted away from front-end load funds. New sales of bond and equity funds with front-end loads accounted for 59 percent of all new sales in 1980. In contrast, the share of front-end load sales had dropped to 27 percent in 2002. This partly reflects the wide-spread use of no-load share classes in 401(k) and other employer-sponsored pension plans. Furthermore, sales of funds with contingent deferred sales loads, such as B and C shares, now account for 10 percent of all fund sales compared with none in 1980.

figure 19

### Percent of Long-Term Fund Share Classes with Front-End Loads by Maximum Front-End Load Charges by Share Class, 1980 and 2002

(percent)



source: Investment Company Institute.

figure 20

# Average Actual and Maximum Front-End Sales Load for Long-Term Funds, 1982–2002, Selected Years

(percent)

Year	Average Actual Cost	Average Maximum Load¹	Actual Load as a Percentage of Maximum Load
1982	4.9	7.0	0.70
1989	4.4	5.5	0.80
1991	3.6	4.9	0.73
1997	2.1	5.1	0.41
1998	1.8	5.1	0.35
1999	1.8	5.2	0.35
2000	1.5	5.4	0.27
2001	1.2	5.2	0.23
2002	1.2	5.2	0.23

<sup>&</sup>lt;sup>1</sup> Sales-weighted average of maximum loads for a sample of stock, hybrid, and bond funds with maximum front-end sales loads greater than 3 percent. The maximum front-end load is the highest load the fund is allowed to charge as set forth in its prospectus.

sources: Maximum loads: Investment Company Institute. Actual loads: Investment Company Institute, 1982, 1989, 1991; Strategic Insight Mutual Fund Research and Consulting LLC, 1997–2002.

### Annual Expenses Paid by Fund Shareholders

Despite shortcomings that are well documented,<sup>29</sup> some industry analysts use the total expense ratio when tracking fund expenses over time.<sup>30</sup> Because total expense ratios exclude loads, this narrower measure of shareholder costs has risen over time for long-term funds, largely as funds and shareholders shifted to 12b-1 fees and away from sales loads for compensating financial advisers. For instance, the average annual expense ratio paid by shareholders rose from 0.68 percent of the value of equity fund shares purchased in 1980 to 1.00 percent in 2002 (Figure 17). Two-thirds of this increase is attributable to increased use of 12b-1 fees.

To treat sales loads and 12b-1 fees consistently, researchers should either exclude 12b-1 fees from expense ratios or include the annual cost of sales loads in their analysis; otherwise the results of the analysis will be biased. As noted earlier, when 12b-1 fees are removed from expense ratios, the remaining expenses capture the cost of managing and operating mutual funds.

Between 1980 and 2002, the actual operating expense ratio for equity funds that shareholders paid rose to 0.78 percent from 0.68 percent, a 15 percent increase (Figure 17). The average cost incurred by buyers of bond funds for operating their funds has declined 25 percent, and 29 percent for money market funds.

One important reason for the rise in average cost paid by shareholders for operating their equity funds is that investors shifted their purchases and holdings toward international and sector funds between 1980 and 2002. In 2002,

18 percent of equity fund assets were in international or sector funds, compared with 3 percent in 1980. The effects of compositional shifts between types of funds owned can be reduced by looking at narrower groups of investment objectives. In nearly all cases, operating expense ratios rose from the early 1980s until the early 1990s. Thereafter, operating expense ratios fell, so that by 2002, shareholders were paying lower operating expense ratios for most types of funds than they had 15 years earlier (Figure 21). Average costs edged back up again after 1999 as fund assets and average account sizes dropped during the 2000–2002 bear market in stocks.

# Trends in Total Annual Expenses Paid by Shareholders

Some industry analysts have recently noted that the increase in the total annual dollar amount of expenses paid by mutual fund shareholders has risen nearly proportionately with mutual fund assets since 1980.<sup>31</sup> These analysts have concluded that the funds are not passing through savings from scale efficiencies because total expenses rose even though asset levels of the industry rose over this period.

There are several errors in this reasoning. First, the total dollars in expenses paid by shareholders ignores the shift from front-end loads to 12b-1 fees. Only 12b-1 fees are included in expense ratios. Including 12b-1 fees in the calculation but excluding loads creates the impression that total costs to shareholders have risen faster than they actually have. The operating expenses, which is where scale economies would be passed through, show a smaller increase over time.

<sup>&</sup>lt;sup>29</sup> U.S. Securities and Exchange Commission (December 2000).

<sup>&</sup>lt;sup>30</sup> For example, see Summary of Statement of John C. Bogle (March 12, 2003), pp. 1–2.

<sup>&</sup>lt;sup>31</sup> See, for example, Statement of John C. Bogle Before the United States Senate Governmental Affairs Subcommittee on Financial Management, the Budget, and International Security (November 3, 2003), p. 16.

figure 21
Asset-Weighted Average Equity and Hybrid Fund Operating Expenses by Investment Objective, 1980–2002

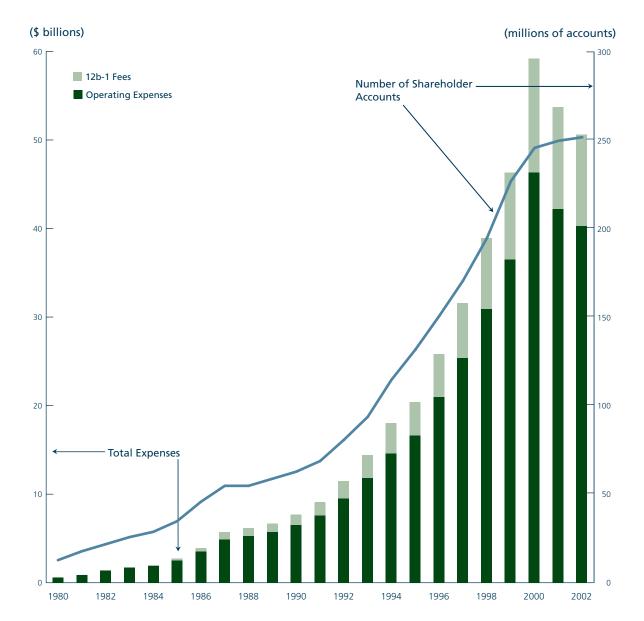
(percent)

Year	Aggressive Growth	Growth	Sector	International	Growth and Income	Income Equity	Hybrid	All Funds
1980	0.89	0.70	1.15	0.91	0.60	0.67	0.69	0.68
1981	0.85	0.70	0.99	0.91	0.60	0.66	0.72	0.68
1982	0.98	0.79	1.09	0.96	0.64	0.68	0.76	0.76
1983	0.95	0.78	1.15	0.92	0.62	0.69	0.75	0.75
1984	0.99	0.78	1.09	0.93	0.64	0.71	0.76	0.78
1985	0.97	0.78	1.01	0.92	0.62	0.69	0.75	0.77
1986	0.99	0.76	1.12	0.98	0.63	0.68	0.74	0.77
1987	1.05	0.81	1.08	1.06	0.65	0.71	0.78	0.81
1988	1.16	0.86	1.33	1.03	0.69	0.80	0.83	0.87
1989	1.14	0.86	1.28	1.01	0.66	0.72	0.84	0.84
1990	1.07	0.89	1.06	1.05	0.66	0.86	0.84	0.86
1991	1.06	0.90	1.01	1.11	0.64	0.82	0.78	0.85
1992	1.06	0.90	0.98	1.14	0.62	0.81	0.75	0.85
1993	1.04	0.91	0.89	1.14	0.60	0.78	0.74	0.84
1994	1.02	0.93	0.94	1.14	0.61	0.76	0.76	0.86
1995	1.00	0.92	0.99	1.10	0.60	0.76	0.76	0.85
1996	0.97	0.89	1.00	1.09	0.57	0.74	0.72	0.83
1997	0.93	0.81	1.02	1.05	0.54	0.73	0.69	0.78
1998	0.92	0.78	0.99	1.02	0.52	0.73	0.68	0.75
1999	0.90	0.76	0.96	0.99	0.50	0.72	0.69	0.73
2000	0.88	0.77	1.00	0.96	0.49	0.74	0.68	0.76
2001	0.93	0.81	0.96	0.97	0.50	0.73	0.67	0.76
2002	0.99	0.84	1.00	1.00	0.51	0.74	0.67	0.78

sources: Investment Company Institute; Lipper, Inc.; Value Line Publishing, Inc.; CDA/Wiesenberger Investment Companies Service; © CRSP University of Chicago, Used with permission, all rights reserved (773.702.7467/www.crsp.com); Primary datasource & © Standard & Poor's Micropal, Inc. 1998 (617.451.1585/www.micropal.com); and Strategic Insight Mutual Fund Research and Consulting, LLC.

figure 22

### Total Annual Expenses and Number of Shareholder Accounts, 1980-2002



sources: Investment Company Institute; Lipper, Inc.; Value Line Publishing, Inc.; CDA/Wiesenberger Investment Companies Service; © CRSP University of Chicago, Used with permission, all rights reserved (773.702.7467/www.crsp.com); Primary datasource & © Standard & Poor's Micropal, Inc. 1998 (617.451.1585/www.micropal.com); and Strategic Insight Mutual Fund Research and Consulting, LLC.

Second, this analysis overlooks the fact that the number of mutual fund accounts rose 20-fold over this period. In 1980, there were 5 million shareholders, and mutual funds managed 12 million shareholder accounts (Figure 22). By 2002, there were 95 million shareholders, and mutual funds managed 250 million accounts. The increase in the

number of shareholders contributed to the increase in the total dollar amount of expenses paid by fund shareholders because of the increased costs of managing the additional accounts.

Third, examining total expenses paid does not account for the change in the asset mix of the industry in the past two decades. Equity fund

assets rose faster than did money fund assets, even after a three-year bear market, so that by 2002, 47 percent of the industry's assets were stock funds (including hybrid funds) and one-third were money funds. Because equity funds have higher expense ratios than money funds, the shift toward equity funds contributed to the increase in total fees collected.

Finally, comparing total fund fees collected in 1980 and 2002 assumes that the services provided by mutual funds were the same in the two years. Fund shareholders receive many more services than were available two decades ago. For instance, shareholders can now access account information over the Internet 24 hours a day and fund companies now provide a wide range of information and services on their websites, including electronic delivery of prospectuses and financial reports. Funds have implemented sophisticated recordkeeping systems that allow them to provide tax-basis reporting and other recordkeeping services. Many bond and money market funds provide check-writing services, which were not as widely available in the early 1980s. These and other enhancements have increased the cost of operating funds and significantly added to the quality of service that shareholders receive.

#### Conclusion

The funds and services offered by mutual fund companies and the investing needs of mutual fund investors have changed dramatically since the early 1980s. Simple comparisons of mutual fund costs over time are difficult to make and analysts often overlook critical changes that render their results misleading. Fund shareholders invest in a much broader mix of mutual funds than was the case 20 years ago, and many of these more specialized funds are more costly to operate. In addition, mutual fund investors have demonstrated a greater preference to pay for the services of financial advisers through annual fees rather than front-end sales loads. Finally, average account sizes have grown much less dramatically than industry asset growth because of the expansion in the number of shareholders that the mutual fund industry services.

Notwithstanding each of these factors that make simple year-to-year comparisons more challenging, the data clearly show that fund shareholders remain heavily invested in the lowest cost funds. On balance, whether one uses a broad measure of fund costs that includes loads and 12b-1 fees or a measure of the cost of operating the fund, it is clear that fund shareholders pay currently much less for the services provided by mutual funds than in the 1980s.

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