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Mutual Funds and the U.S. Retirement Market in 2003

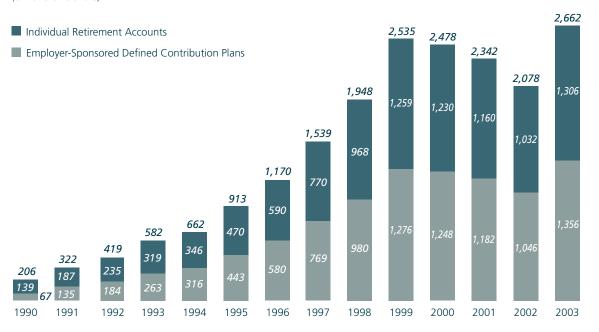
Retirement assets invested in mutual funds rose 28 percent in 2003, reaching \$2.7 trillion by year-end (Figure 1).^{1,2} Strong stock market returns and net cash inflows produced

most of the increase by both Individual Retirement Account (IRA) and employer-sponsored defined contribution plan holdings of mutual funds. By year-end 2003, 36 percent of all mutual fund

figure 1

Retirement Assets Invested in Mutual Funds, 1990-2003

(billions of dollars)



² In this report, estimates of mutual fund assets in defined benefit plans have been excluded because of incomplete reporting. The Federal Reserve Board's *Flow of Funds Accounts* (June 10, 2004) data indicate that mutual fund assets held in defined benefit plans accounted for about 1 percent of the U.S. retirement market at year-end 2003.



Based on data from ICI's Annual Questionnaire for Retirement Statistics. The 2003 survey gathered data from 14,059 mutual fund share classes representing approximately 83 percent of mutual fund industry assets. Assets were estimated for all nonreporting funds. Data before 2003 reflect revisions to previously reported data.

An estimate of retirement assets in broker street name and omnibus accounts was derived from data reported on the Annual Questionnaire for Retirement Statistics and the Annual Institutional Survey.

assets were held in retirement accounts (Figure 2).³ Retirement accounts held 45 percent of all long-term—equity, hybrid, and bond—fund assets at

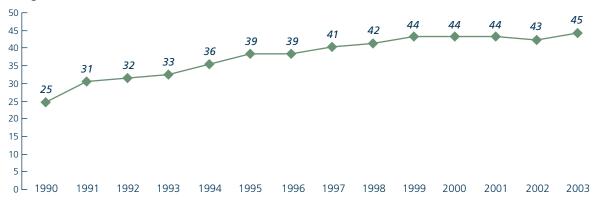
year-end 2003, but only 13 percent of money market fund assets.

figure 2

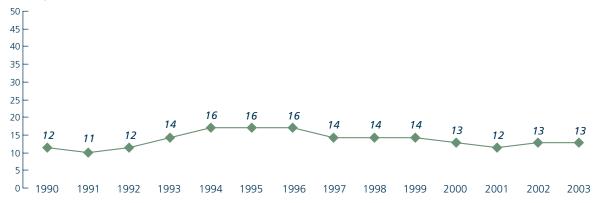
Share of Mutual Fund Assets Held in Retirement Accounts, 1990–2003 (percent)

All Funds

Long-Term Funds*



Money Market Funds



*Long-term funds include equity, hybrid, and bond mutual funds.

³ The retirement share of mutual fund assets has remained relatively stable, in part, because equity fund performance has accounted for a large portion of the change in mutual fund assets inside and outside retirement accounts since the mid-1990s.

Total U.S. retirement assets rose by 18 percent to \$12.1 trillion in 2003, lifted largely by higher stock prices and new contributions. The mutual fund portion of total retirement assets rose to

22 percent (Figure 3), reflecting the more rapid growth of retirement assets invested in mutual funds.

figure 3

Mutual Fund Share of U.S. Retirement Assets, 1,2 1990–2003 (percent)



¹ U.S. retirement assets include IRAs, annuities, and employer-sponsored defined benefit and defined contribution pension plans. Pension plans are sponsored by employers such as businesses; federal, state, and local governments; and nonprofit organizations.

sources: Investment Company Institute, Federal Reserve Board, National Association of Government Defined Contribution Administrators, American Council of Life Insurers, and Internal Revenue Service

² Mutual fund retirement assets exclude defined benefit plans' mutual fund holdings, which amount to about 1 percent of the U.S. retirement market.

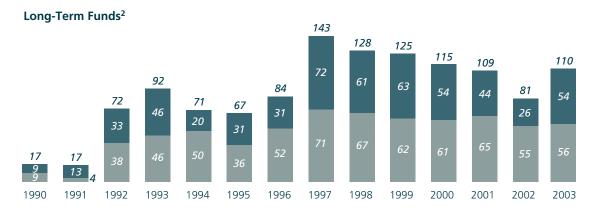
figure 4

Estimated Net New Cash Flow¹ to Retirement Accounts Held in Mutual Funds, 1990–2003 (billions of dollars)

IRAs

■ Employer-Sponsored Defined Contribution Plans





Money Market Funds



¹ See text footnote 4 for an explanation of the procedure used to estimate net new cash flows.

note: Components may not add to total because of rounding.

² Long-term funds include equity, hybrid, and bond mutual funds.

Estimated Net New Cash Flow from Retirement Accounts

Net flows to mutual funds from retirement accounts were an estimated \$85 billion in 2003, down from an estimated \$95 billion in 2002 (Figure 4).⁴ Retirement account investors

contributed an estimated \$110 billion to long-term mutual funds, up from \$81 billion in 2002. Equity funds received an estimated net inflow of \$78 billion from retirement accounts, more than four times the net inflow in 2002 (Figure 5). The net inflow to hybrid funds from retirement accounts

figure 5

Estimated Net New Cash Flow¹ to Retirement Accounts Held in Mutual Funds by Type of Fund, 1997–2003

(billions of dollars)

	1997	1998	1999	2000	2001	2002	2003
Total Retirement	\$137	\$160	\$153	\$115	\$135	\$95	\$85
IRAs	68	80	78	52	58	36	37
Defined Contribution Plans	69	80	76	63	78	59	49
Long-Term Funds	143	128	125	115	109	81	110
IRAs	72	61	63	54	44	26	54
Defined Contribution Plans	71	67	62	61	65	55	56
Equity Funds	124	99	124	134	51	17	78
IRAs	64	49	64	68	21	-8	34
Defined Contribution Plans	60	50	59	65	30	24	44
Hybrid Funds²	14	10	-2	-5	20	15	32
IRAs	6	2	-3	-5	7	7	18
Defined Contribution Plans	8	7	1	1	14	8	13
Bond Funds	5	20	3	-14	37	50	(*)
IRAs	2	10	1	-9	16	27	1
Defined Contribution Plans	3	10	2	-5	21	22	-1
Money Market Funds	-6	32	28	(*)	27	14	-25
IRAs	-3	20	14	-2	14	10	-17
Defined Contribution Plans	-2	12	13	2	13	4	-8
Memo:							
Industry Net New Cash Flow	374	477	363	389	505	74	-43
Equity Funds	227	157	188	309	32	-28	152
Hybrid Funds²	16	10	-14	-31	10	8	33
Bond Funds	28	75	-4	-50	88	140	31
Money Market Funds	102	235	194	160	376	-47	-258

^{(*)=}Between \$500 million and -\$500 million.

note: Components may not add to total because of rounding.

source: Investment Company Institute

$$RF_{t} = TF_{t}(RA_{t-1} + RA_{t}) + 2(RA_{t})(TA_{t-1}) - 2(TA_{t})(RA_{t-1})$$

$$(TA + TA_{t-1})$$

For a given investment objective, RF represents retirement net new cash flow, TF represents total net new cash flow, RA represents retirement assets, and TA represents total assets.

¹ See text footnote 4 for an explanation of the procedure used to estimate net new cash flows.

² Hybrid funds invest in a mix of equity and fixed-income securities.

⁴ ICI does not collect sales or net new cash flow information for retirement plans on its Annual Retirement Questionnaire. Net new cash flow is sales of shares (other than reinvested distributions) less redemptions plus net exchanges. Net new cash flow was estimated by assuming that retirement assets within an investment objective category had the same investment performance as all mutual fund assets in that category. Investment performance for each investment objective was calculated by taking the total change in assets and adjusting for total net new cash flow during the year. Retirement assets were adjusted by investment performance. The residual change in assets was attributable to net new cash flow. The formula for the flow calculation is:

more than doubled in 2003 to an estimated \$32 billion, while bond fund flows from retirement accounts were negligible in 2003. Money market mutual funds experienced a net outflow of \$25 billion from retirement accounts in 2003. The outflow from these funds mirrored the overall outflow from money market funds industrywide.⁵

Estimated Net New Cash Flow from IRAs

Net new cash flow to mutual funds from IRAs was an estimated \$37 billion in 2003 (Figure 5). Long-term mutual funds received an estimated \$54 billion in net new cash flow in 2003, up from an estimated \$26 billion in 2002. IRA investors' purchasing activity in equity funds mirrored that of all mutual fund shareholders: slowing in 2002 and picking up again in 2003. Hybrid funds received an estimated \$18 billion in net new cash flow from IRAs in 2003, nearly triple the estimated inflow in 2002, while bond fund flows from IRAs slowed to \$1 billion. Money market funds experienced an estimated net outflow of \$17 billion from IRAs in 2003.

Estimated Net New Cash Flow from Defined Contribution Plans

Mutual funds received an estimated \$49 billion in net new cash flow from defined contribution plan investors in 2003 (Figure 5). Net new cash flow to long-term mutual funds from defined contribution plan accounts was an estimated \$56 billion in 2003, compared with an estimated \$55 billion in 2002. Net new cash flow into equity funds from defined contribution plan accounts was an estimated \$44 billion in 2003, an 83 percent increase over the estimated \$24 billion net inflow in 2002. Hybrid funds experienced an estimated \$13 billion in net new cash flow from defined contribution plan accounts in 2003, up from \$8 billion in 2002. After two years of double-digit inflows, bond funds experienced a slight outflow from defined contribution plan accounts in 2003. Defined contribution plan money market fund accounts had an estimated \$8 billion outflow in 2003.

⁵ For a discussion of industry developments in 2003, see Brian Reid, Stephen Sevigny, and Bernhard Silli, "Mutual Fund and Economic Developments in 2003," *Perspective*, Vol. 10, No. 1, March 2004 (www.ici.org/pdf/per10-01.pdf).

An Overview of the U.S. Retirement Market

The U.S. retirement market is composed of IRAs, public and private defined contribution and defined benefit plans, and annuities not otherwise held in IRAs and pension plans (Figure 6).⁶ At year-end 2003, IRAs held \$3.0 trillion (25 percent) of the total U.S. retirement market and defined contribution plans held \$2.9 trillion (24 percent). Private defined benefit plans held \$1.9 trillion, or 15 percent, of the total retirement

market at year-end, and assets held in state and local government pension plans (which are predominantly defined benefit plans) ⁷ amounted to \$2.3 trillion (19 percent). Federal pension plans, including the Thrift Savings Plan (TSP), held \$959 billion at year-end 2003, or 8 percent of the total retirement market. The remaining \$1.0 trillion (8 percent) of total retirement assets were fixed and variable annuities, excluding those held in IRAs, 403(b) plans, 457 plans, or private pension plans.

figure 6

U.S. Total Retirement Market, 1990-2003

(billions of dollars)

	IRAs	Defined Contribution Plans ¹	State and Local Government Pension Plans	Private Defined Benefit Plans	Federal Pension Plans ²	Annuities ³	Total
1990	\$637	\$889	\$810	\$924	\$340	\$388	\$3,989
1991	776	1,058	878	1,075	382	420	4,590
1992	873	1,160	971	1,100	426	470	5,000
1993	993	1,319	1,063	1,214	468	519	5,576
1994	1,056	1,404	1,103	1,307	512	523	5,904
1995	1,288	1,711	1,320	1,494	541	570	6,924
1996	1,467	1,950	1,515	1,616	606	605	7,758
1997	1,728	2,332	1,842	1,786	659	628	8,974
1998	2,150	2,619	2,085	1,930	718	778	10,280
1999	2,651	2,975	2,262	2,119	776	878	11,662
2000	2,629	2,944	2,331	2,008	799	878	11,590
2001	2,619 ^p	2,702	2,226	1,816	862	944	11,170
2002	2,445e	2,409	2,013	1,599	897	884	10,247
2003	3,007e	2,897	2,320	1,858	959	1,024	12,064

e=estimated p=preliminary

note: Components may not add to total because of rounding.

sources: Investment Company Institute, Federal Reserve Board, National Association of Government Defined Contribution Administrators, American Council of Life Insurers, and Internal Revenue Service

¹ Defined contribution plans include private employer-sponsored defined contribution plans (including 401(k) plans), 403(b) plans, and 457 plans.

² Federal pension plans include U.S. Treasury security holdings of the civil service retirement and disability fund, the military retirement fund, the judicial retirement funds, the Railroad Retirement Board, and the foreign service retirement and disability fund. These plans also include securities held in the National Railroad Retirement Investment Trust and the Federal Employees Retirement System (FERS) Thrift Savings Plan (TSP).

³ Annuities include all fixed and variable annuity reserves at life insurance companies less annuities held by IRAs, 403(b) plans, 457 plans, and private pension plans. Some of these annuity reserves represent assets of individuals held outside retirement plan arrangements and IRAs; however, information to separate out such reserves is not available.

⁶ ICI adds non-annuity IRA, 403(b) plan, and 457 plan assets to total pension reserves reported in the Federal Reserve Board's *Flow of Funds Accounts*. To avoid double counting, annuities held in IRAs, 403(b) plans, and 457 plans are netted from life insurance pension reserves (annuities) reported in the *Flow of Funds Accounts*.

⁷ ICI tabulations of the 2000 Survey of State and Local Government Employee Retirement Systems, conducted by the Government Finance Officers Association Research Center, indicate that defined benefit plans represent about 90 percent of the actuarial value of assets held by state and local government retirement funds.

IRA Holdings of Mutual Funds

Total IRA market assets rose 23 percent in 2003, reaching \$3.0 trillion at year-end (Figure 7).8

The amount of IRAs invested in mutual funds

also increased in 2003, rising 27 percent to \$1.3 trillion. At the end of 2003, mutual fund IRA assets were 43 percent of total IRA assets.

figure 7

IRA Assets and Share of Total IRA Assets by Institution, 1990-2003

		tual nds	Bank and Thrift Deposits ¹			surance panies ²	in Bro	es Held kerage unts³	Total
	Assets (billions)	Share ⁴ (percent)	Assets (billions)	Share ⁴ (percent)	Assets (billions)	Share ⁴ (percent)	Assets (billions)	Share ⁴ (percent)	Assets (billions)
1990	\$139	22%	\$266	42%	\$40	6%	\$191	30%	\$637
1991	187	24	282	36	45	6	262	34	776
1992	235	27	275	31	50	6	314	36	873
1993	319	32	263	26	61	6	350	35	993
1994	346	33	255	24	69	7	386	37	1,056
1995	470	36	261	20	81	6	477	37	1,288
1996	590	40	258	18	92	6	527	36	1,467
1997	770	45	254	15	135	8	569	33	1,728
1998	968	45	249	12	156	7	776	36	2,150
1999	1,259	47	244	9	202	8	947	36	2,651
2000	1,230	47	252	10	202	8	945	36	2,629
2001	1,160	44	255	10	210	8	994e	38	2,619p
2002	1,032	42	263	11	267	11	883e	36	2,445e
2003	1,306	43	268	9	315e	10	1,117e	37	3,007e

e=estimated p=preliminary

note: Components may not add to total because of rounding.

sources: Investment Company Institute, Federal Reserve Board, American Council of Life Insurers, and Internal Revenue Service

¹ Bank and thrift deposits include Keogh deposits.

² Annuities held by IRAs, excluding variable annuity mutual fund IRA assets.

³ Securities held in brokerage accounts exclude mutual fund assets held through brokerage accounts, which are included in mutual funds.

⁴ Percent of total IRA assets.

⁸ Total IRA market assets are derived from unpublished tabulations of total IRA assets provided by the IRS Statistics of Income (SOI) Division for tax-years 1989, 1993, and 1996 through 2001. These tabulations are based on a sample of IRS returns. For a description of the SOI estimation techniques, see Peter J. Sailer, Michael E. Weber, and Kurt S. Gurka, "Are Taxpayers Increasing the Buildup of Retirement Assets? Preliminary Results from a Matched File of Tax Year 1999 Tax Returns and Information Returns," *National Tax Association, Proceedings, Ninety-Fifth Annual Conference on Taxation, 2002,* Washington, DC: National Tax Association, 2003; pp. 364–369.

Types of Mutual Funds in IRAs

The increase in IRA assets invested in mutual funds in 2003 occurred in all long-term fund categories (Figure 8). Buoyed by net cash inflow and strong stock market performance, IRA investors' holdings of equity funds increased 38 percent in 2003. Equity funds represented the largest component of IRA assets held in mutual funds by a wide margin, accounting for 65 percent of total mutual fund IRA assets at year-end 2003. IRA investors' holdings

of hybrid funds also increased in 2003, rising 43 percent and reaching \$137 billion. IRA bond fund assets rose 9 percent to \$164 billion at year-end 2003. Money market funds held in IRAs declined 8 percent in 2003, falling to \$160 billion by year-end. At year-end 2003, money market funds represented 12 percent of total mutual fund IRA assets, while the share of bond funds slipped to 13 percent and that of hybrid funds edged up to 10 percent.

figure 8

IRA Holdings of Mutual Funds by Type of Fund, 1996–2003

	Assets (billions)	Share ² (percent)	Foreigi Assets (billions)	Share ² (percent)	Assets (billions)	Share ² (percent)	Assets (billions)	Share ² (percent)	Assets (billions)	Market Share² (percent)	Total Assets (billions)
1996	\$296	50%	\$63	11%	\$65	11%	\$77	13%	\$89	15%	\$590
1997	435	56	75	10	83	11	86	11	92	12	770
1998	570	59	89	9	94	10	99	10	117	12	968
1999	791	63	131	10	98	8	101	8	138	11	1,259
2000	781	63	120	10	92	7	96	8	142	12	1,230
2001	690	60	97	8	96	8	115	10	161	14	1,160
2002	531	51	80	8	96	9	150	15	174	17	1,032
2003	732	56	113	9	137	10	164	13	160	12	1,306

¹ Hybrid funds invest in a mix of equity and fixed-income securities.

note: Components may not add to total because of rounding.

² Percent of total mutual fund assets in IRAs.

Index Funds in IRAs. At year-end 2003, \$82 billion, or 6 percent, of mutual funds held in IRAs were in index mutual funds—equity, hybrid,

and bond funds that target specific market indexes (Figure 9). IRAs held about 18 percent of the \$451 billion in index fund assets at year-end 2003.



^{*}Index mutual funds are equity, hybrid, and bond funds that target specific market indexes with the general objective of meeting the performance of that index. Equity index funds are the most common type of index fund, accounting for 88 percent of the \$451 billion in index fund assets at year-end 2003.

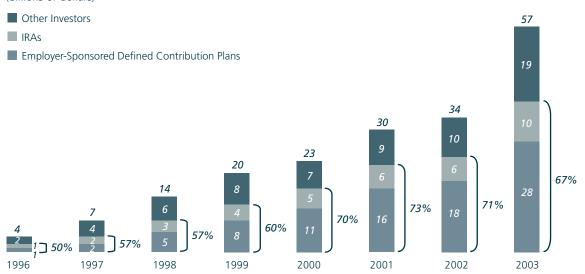
note: Components may not add to total because of rounding.

Lifestyle and Lifecycle Funds in IRAs. Within the hybrid fund category, industry analysts often focus on a subcategory of funds known as lifestyle and lifecycle funds. A lifestyle fund maintains a predetermined risk level and generally contains the word "conservative," "moderate," or "aggressive" in its name. A lifecycle fund follows a predetermined reallocation of risk over time to a specified target

date, and typically rebalances to be more conservative and income-producing by the target date, with the target date usually indicated in the fund's name. At year-end 2003, there were an estimated \$57 billion in assets in lifestyle and lifecycle funds, with 18 percent, or \$10 billion, held in IRAs (Figure 10).

figure 10

Lifestyle and Lifecycle Funds* and Retirement Accounts, 1996–2003 (billions of dollars)



^{*}A lifestyle fund is a hybrid fund that maintains a predetermined risk level and generally contains the word "conservative," "moderate," or "aggressive" in the fund's name. A lifecycle fund is a hybrid fund that typically rebalances to an increasingly conservative portfolio as the target date of the fund (mentioned in its name) approaches.

note: Components may not add to total because of rounding.

Types of IRAs Invested in Mutual Funds

Traditional IRAs⁹ represented 87 percent of all IRA assets held in mutual funds, or \$1.1 trillion at year-end 2003 (Figure 11). Roth IRAs¹⁰ held \$72 billion, or 6 percent of all mutual fund IRA

assets. Mutual funds were the primary investment of Roth IRAs, representing \$72 billion of an estimated \$102 billion invested in Roth IRAs at year-end 2003 (Figure 12).

figure 11
IRA Holdings of Mutual Funds by Type of IRA, 1992–2003

		tional ¹		SAR-SEP		th ²		1PLE	_	ation ³	Total
	Assets (billions)	Share ⁴ (percent)	Assets (billions)	Share ⁴ (percent)	Assets (billions)	Share ⁴ (percent)	Assets (billions)	Share ⁴ (percent)	Assets (billions)	Share ⁴ (percent)	Assets (billions)
1992	\$228	97%	\$7	3%	-	-	-	-	-	-	\$235
1993	306	96	13	4	-	-	-	-	-	-	319
1994	332	96	14	4	-	-	-	-	-	-	346
1995	446	95	23	5	-	-	-	-	-	-	470
1996	558	95	32	5	-	-	-	-	-	-	590
1997	726	94	44	6	-	-	(*)	(**)	-	-	770
1998	879	91	56	6	\$30	3%	\$2	(**)	(*)	(**)	968
1999	1,126	89	73	6	53	4	6	(**)	\$1	(**)	1,259
2000	1,096	89	69	6	55	4	8	1%	1	(**)	1,230
2001	1,030	89	63	5	53	5	11	1	2	(**)	1,160
2002	909	88	57	5	52	5	12	1	2	(**)	1,032
2003	1,137	87	73	6	72	6	20	2	3	(**)	1,306

(*)=Less than \$500 million.

note: Components may not add to total because of rounding.

^{(**)=}Less than ½ percent.

¹ Traditional IRAs include contributory and rollover IRAs.

² Roth IRAs include contributory and conversion Roth IRAs.

³ Education IRAs were renamed Coverdell Education Savings Accounts (ESAs) in July 2001.

⁴ Percent of total mutual fund assets in IRAs.

The traditional IRA was created under the Employee Retirement Income Security Act (ERISA) of 1974. As of mid-2003, an estimated 36.4 million, or 33.3 percent of, U.S. households owned traditional IRAs (see Investment Company Institute, "IRA Ownership in 2003," Fundamentals, Vol. 12, No. 3, September 2003; www.ici.org/pdf/fm-v12n3.pdf).

¹⁰ Roth IRAs were created under the Taxpayer Relief Act of 1997 and were first available in 1998.

Employer-sponsored IRAs held \$93 billion in mutual fund assets, or 8 percent of IRA assets invested in mutual funds in 2003 (Figure 11). Most of these assets were in simplified employee pension (SEP) IRAs and salary reduction (SAR) SEP IRAs,¹¹ which held \$73 billion in mutual funds at year-end 2003. Mutual fund assets in SIMPLE IRAs¹² grew 67 percent in 2003 to \$20 billion, up from \$12 billion at year-end 2002. SIMPLE IRAs totaled an estimated \$25 billion in assets by year-end 2003, with \$20 billion of the total invested in mutual funds (Figure 13). SIMPLE IRAs are designed for firms with 100 or fewer employees. Indeed, an ICI survey found that 89 percent of SIMPLE IRA plans had 10 or fewer participants at the end of 2003.13 Education IRAs, now known as Coverdell Education Savings Accounts (ESAs),14 held about \$3 billion in mutual funds at year-end 2003 (Figure 11).15

figure 12

Roth IRAs, 1998-2003

(billions of dollars)

	Contributions	Conversions	Total Assets	Assets Held in Mutual Funds
1998	\$8.6	\$39.3	\$56.8	\$30
1999	10.7	3.7	76.2	53
2000	11.5	3.2	77.6	55
2001	11.1P	3.1 ^p	79.3 ^p	53
2002	N/A	N/A	80.0e	52
2003	N/A	N/A	102.0e	72

e=estimated

p=preliminary

N/A=not available

sources: Investment Company Institute and Internal Revenue Service, Statistics of Income Division

figure 13

SIMPLE IRAs, 1997-2003

(billions of dollars)

	Contributions	Total Assets	Assets Held in Mutual Funds
1997	\$0.6	N/A	(*)
1998	2.2	\$3.6 ^e	\$2
1999	3.4	9.1	6
2000	4.7	10.4	8
2001	5.5 ^p	13.6 ^p	11
2002	N/A	15.0 ^e	12
2003	N/A	25.0e	20

(*)=Less than \$500 million.

e=estimated

p=preliminary

N/A=not available

sources: Investment Company Institute and Internal Revenue Service, Statistics of Income Division

¹¹ The SEP IRA was created under the Revenue Act of 1978. The SAR-SEP IRA was created under the Tax Reform Act of 1986, and the Small Business Job Protection Act of 1996 prohibited the formation of new SAR-SEP IRAs after December 31, 1996.

¹² SIMPLE (Savings Incentive Match Plans for Employees) IRAs were created under the Small Business Job Protection Act of 1996 and were first available in 1997.

¹³ ICI surveyed a segment of its members representing an estimated 74 percent of SIMPLE IRA assets invested in mutual funds at year-end 2003. The survey respondents indicated that more than an estimated 1.6 million workers were participating in 376,100 SIMPLE IRA plans at year-end 2003.

¹⁴ Education IRAs were created under the Taxpayer Relief Act of 1997 and were first available in 1998. In July 2001, Education IRAs were renamed Coverdell ESAs.

For a study of households saving for college and their use of education-targeted savings vehicles (Coverdell ESAs, state-sponsored 529 prepaid tuition plans, and state-sponsored 529 college savings plans), see Investment Company Institute, *Profile of Households Saving for College*, Fall 2003 (www.ici.org/pdf/rpt_03_college_saving.pdf).

Defined Contribution Plan Holdingsof Mutual Funds

Defined contribution plan assets invested in mutual funds increased \$310 billion, or 30 percent, in 2003 to \$1.4 trillion (Figure 14). Investment returns boosted asset levels along with an estimated net new cash flow of \$49 billion into defined contribution plan mutual fund accounts (Figure 5). Defined contribution plan assets in long-term funds recorded substantial increases, while defined contribution plan holdings of money market funds fell moderately (Figure 14).

Types of Mutual Funds in Defined Contribution Plans

At year-end 2003, 71 percent of defined contribution plan assets held in mutual funds were invested in equity funds, with domestic equity funds representing 63 percent of the total and foreign equity funds accounting for 8 percent (Figure 14). In addition, hybrid funds held

11 percent of defined contribution plan assets invested in mutual funds, while bond funds represented 9 percent of the total. Assets held in money market funds accounted for the remaining 8 percent.

Index, Lifestyle, and Lifecycle Funds in Defined Contribution Plans. At year-end 2003, defined contribution plan accounts held \$127 billion in index mutual funds (Figure 9), accounting for 9 percent of defined contribution plan assets invested in mutual funds. In addition, about \$28 billion (Figure 10), or 2 percent, of defined contribution plan assets invested in mutual funds were invested in lifestyle and lifecycle funds. Although defined contribution plan account holdings of lifestyle and lifecycle funds are a small proportion of all defined contribution plan mutual fund assets, these accounts represented about half of the estimated \$57 billion in all lifestyle and lifecycle funds at year-end 2003.

figure 14

Defined Contribution Plan Holdings of Mutual Funds by Type of Fund, 1996–2003

	Domestic Equity		Foreig	ո Equity	Hyb	rid ¹	Во	nd	Money	Market	Total
	Assets (billions)	Share ² (percent)	Assets (billions)	Share ² (percent)	Assets (billions)	Share ² (percent)	Assets (billions)	Share ² (percent)	Assets (billions)	Share ² (percent)	Assets (billions)
1996	\$383	66%	\$39	7%	\$56	10%	\$44	8%	\$59	10%	\$580
1997	530	69	54	7	76	10	50	7	59	8	769
1998	686	70	63	6	93	9	63	6	75	8	980
1999	916	72	101	8	102	8	65	5	92	7	1,276
2000	882	71	102	8	103	8	63	5	98	8	1,248
2001	781	66	86	7	113	10	87	7	115	10	1,182
2002	622	60	76	7	110	11	117	11	121	12	1,046
2003	854	63	114	8	147	11	127	9	115	8	1,356

¹ Hybrid funds invest in a mix of equity and fixed-income securities.

note: Components may not add to total because of rounding.

² Percent of total mutual fund assets in defined contribution plans.

Types of Defined Contribution Plans in Mutual Funds

Defined contribution plans held \$1.4 trillion in mutual funds at year-end 2003 (Figure 15). These

mutual fund assets were held by 401(k) plans, 403(b) plans, 457 plans, and other defined contribution plans (including Keoghs and defined contribution plans without 401(k) features).

figure 15

Defined Contribution Plan Holdings of Mutual Funds by Type of Plan, 1991–2003

(billions of dollars)

	401(k) Plans	403(b) Plans	457 Plans	Other Defined Contribution Plans*	Total
1991	\$46	\$68	\$2	\$20	\$135
1992	82	74	3	25	184
1993	140	86	4	33	263
1994	184	90	6	37	316
1995	266	119	8	50	443
1996	350	148	11	70	580
1997	479	187	17	86	769
1998	619	233	24	104	980
1999	814	289	40	133	1,276
2000	820	264	38	127	1,248
2001	799	238	37	109	1,182
2002	711	200	31	105	1,046
2003	922	263	38	133	1,356

^{*}Other defined contribution plans include Keoghs and defined contribution plans (profit-sharing, thrift-savings, stock bonus, and money purchase) without 401(k) features

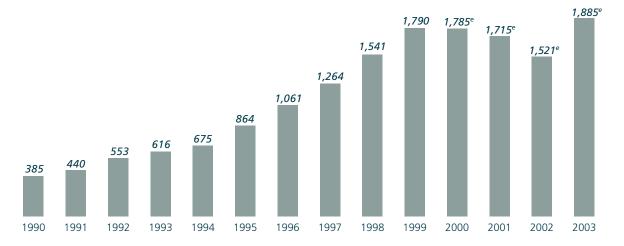
note: Components may not add to total because of rounding.

sources: Investment Company Institute, Federal Reserve Board, and Department of Labor

401(k) *Plans.* At year-end 2003, 401(k) plans held \$922 billion in mutual fund assets (Figure 15) and mutual funds accounted for approximately 49 percent of all 401(k) plan assets (Figure 16). 16

Seventy percent of 401(k) plan assets invested in mutual funds at year-end 2003 were invested in equity funds, 12 percent in hybrid funds, 9 percent in bond funds, and 9 percent in money market

figure 16
401(k) Assets, 1990–2003
(billions of dollars)



Mutual Fund Share of 401(k) Assets, 1990-2003



note: See text footnote 16 for a description of the data and the estimation procedure. **sources:** Investment Company Institute, Federal Reserve Board, and Department of Labor

¹⁶ Assets in 401(k) plans refer to private defined contribution plans with 401(k) features (e.g., salary deferral feature). However, 401(k) assets reported for mutual funds and the 401(k) market may include some defined contribution plan assets purchased in the plans prior to the addition of 401(k) features. For the years 1990 through 1998, total 401(k) asset data are from *Private Pension Plan Bulletin*, U.S. Department of Labor, Pension and Welfare Benefits Administration (renamed the Employee Benefits Security Administration), No. 11, Winter 2001–2002. The data point for 1999 was provided by the U.S. Department of Labor, Employee Benefits Security Administration (publication forthcoming). ICI estimates of 401(k) plan assets after 1999 were made by assuming that 401(k) assets grew at a slightly faster rate than assets in all defined contribution plans. The growth rate of defined contribution plan assets was calculated using data from the Federal Reserve Board's *Flow of Funds Accounts* (June 10, 2004).

funds (Figure 17). Mutual fund assets held in 401(k) plans increased 30 percent in 2003 (Figure 15), buoyed by investment returns as well as a net cash inflow. Net new cash flow to

mutual funds from 401(k) plans totaled an estimated \$34 billion in 2003, compared with an estimated \$38 billion in 2002.

figure 17

Defined Contribution Plan Holdings of Mutual Funds by Type of Plan and Fund, 2003

•••••	Domestic Equity		Foreig	n Equity	Hyl	orid ¹	Во	nd	Money	/ Market	Total	
	Assets (billions)	Share ² (percent)	Assets (billions)									
401(k) Plans	\$560	61%	\$84	9%	\$112	12%	\$86	9%	\$80	9%	\$922	
403(b) Plans	197	75	17	7	19	7	17	6	14	5	263	
457 Plans	24	64	3	8	5	13	3	9	2	5	38	
Other Defined Contribution Plans ³	73	55	9	7	12	9	20	15	19	14	133	

¹ Hybrid funds invest in a mix of equity and fixed-income securities.

note: Components may not add to total because of rounding.

² Percent of mutual fund plan assets invested in type of fund.

³ Other defined contribution plans include Keoghs and defined contribution plans (profit-sharing, thrift-savings, stock bonus, and money purchase) without 401(k) features.

403(b) Plans. At year-end 2003, 403(b) plans held \$263 billion in mutual funds (Figure 15). These defined contribution plans are tax-deferred retirement plans available to employees of educational institutions and certain nonprofit organizations. Eighty-two percent of 403(b) plan holdings of mutual funds were invested in equity funds, 7 percent in hybrid funds, 6 percent in bond funds, and 5 percent in money market funds

at year-end 2003 (Figure 17). Sixty percent, or \$158 billion, of mutual fund assets held in 403(b) plan accounts were variable annuity (VA) mutual funds (Figure 18). Of the total estimated \$532 billion in 403(b) plan assets at year-end 2003, half, or \$269 billion, were held as annuity reserves at life insurance companies, 30 percent were held in VA mutual funds, and 20 percent were in non-VA mutual funds.

figure 18 403(b) Plan Assets and Share of Total 403(b) Plan Assets by Institution, 1996–2003

	Life In:	Life Insurance Companies ¹		ual Funds	Non-VA N	lutual Funds	Total
	Assets (billions)	Share² (percent)	Assets (billions)	Share² (percent)	Assets (billions)	Share² (percent)	Assets (billions)
1996	\$208e	58%	\$103	29%	\$45	13%	\$356
1997	238e	56	129	30	59	14	425
1998	205	47	158	36	75	17	437
1999	236	45	191	36	98	19	525
2000	252	49	174	34	90	17	516
2001	205	46	150	34	88	20	443
2002	235	54	120	28	79	18	435
2003	269e	50	158	30	105	20	532

e=estimated

note: Components may not add to total because of rounding.

sources: Investment Company Institute, American Council of Life Insurers, and Federal Reserve Board

¹ Annuities held by 403(b) plans, excluding variable annuity (VA) mutual fund 403(b) assets.

² Percent of total 403(b) plan assets.

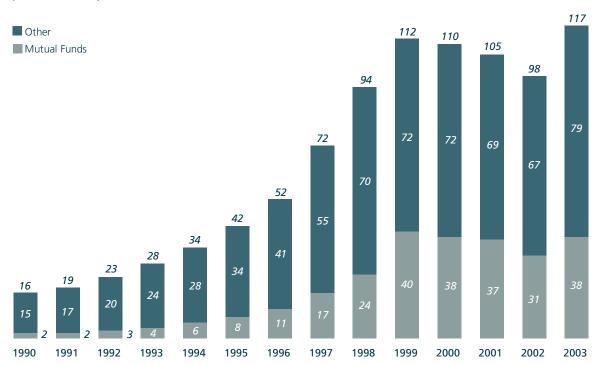
457 Plans. At year-end 2003, 457 plans held \$38 billion in mutual funds, up 23 percent compared with 2002 (Figure 15). Almost three-quarters of mutual fund 457 plan assets were invested in equity funds at year-end 2003 (Figure 17). These plans, which allow deferred compensation by employees of state and local governments and certain tax-exempt organizations, had estimated total assets of \$117 billion at the end of 2003 (Figure 19).

Other Defined Contribution Plans. Other defined contribution plans, which include Keoghs and defined contribution plans without 401(k) features, held \$133 billion in mutual fund assets at the end of 2003 (Figure 15). Sixty-two percent of these plans' mutual fund assets were invested in equity funds at year-end 2003, while 9 percent were in hybrid funds, 15 percent were in bond funds, and 14 percent were in money market funds (Figure 17).

figure 19

457 Plan Assets, 1990-2003

(billions of dollars)



note: Components may not add to total because of rounding.

sources: Investment Company Institute, National Association of Government Defined Contribution Administrators, and American Council of Life Insurers

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