

The U.S. Mutual Fund Industry

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Bibliography

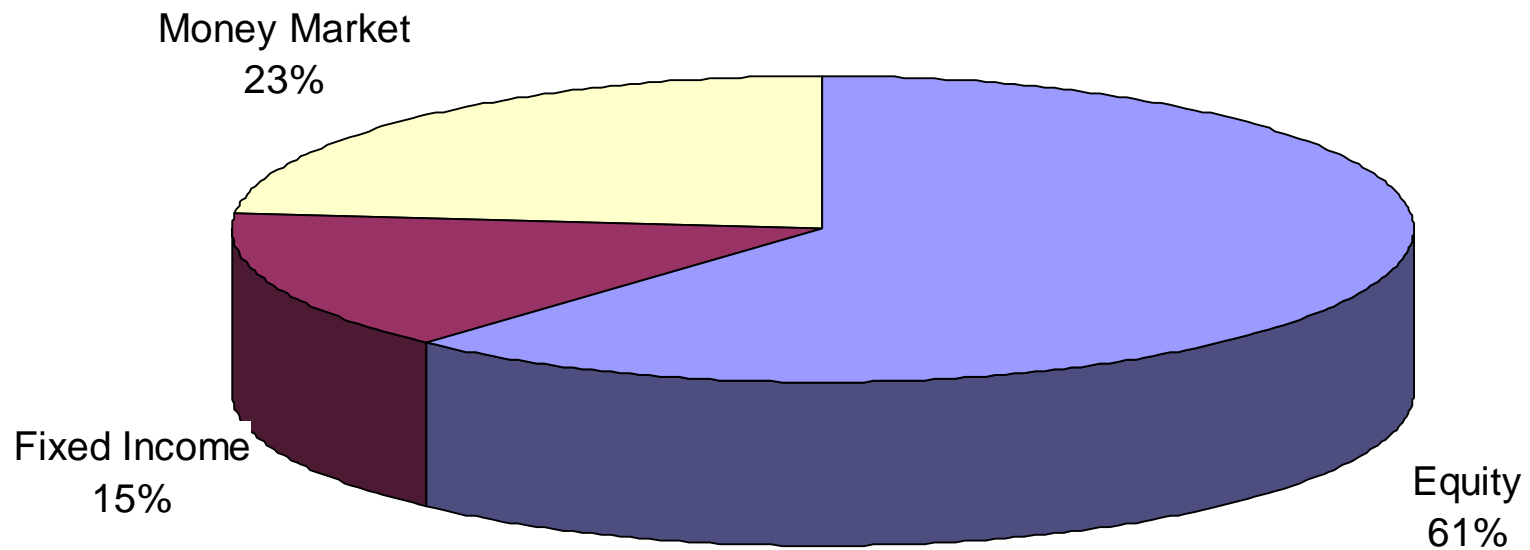
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Professional Credentials

- Consultant on Mutual Funds
- Member Board of Directors
- DWS
- Daiwa Closed End Funds
- Formerly
 - Member of Board of TIAA
 - Chairman of Board of CREF
 - Member of Board of SG Cowen Funds

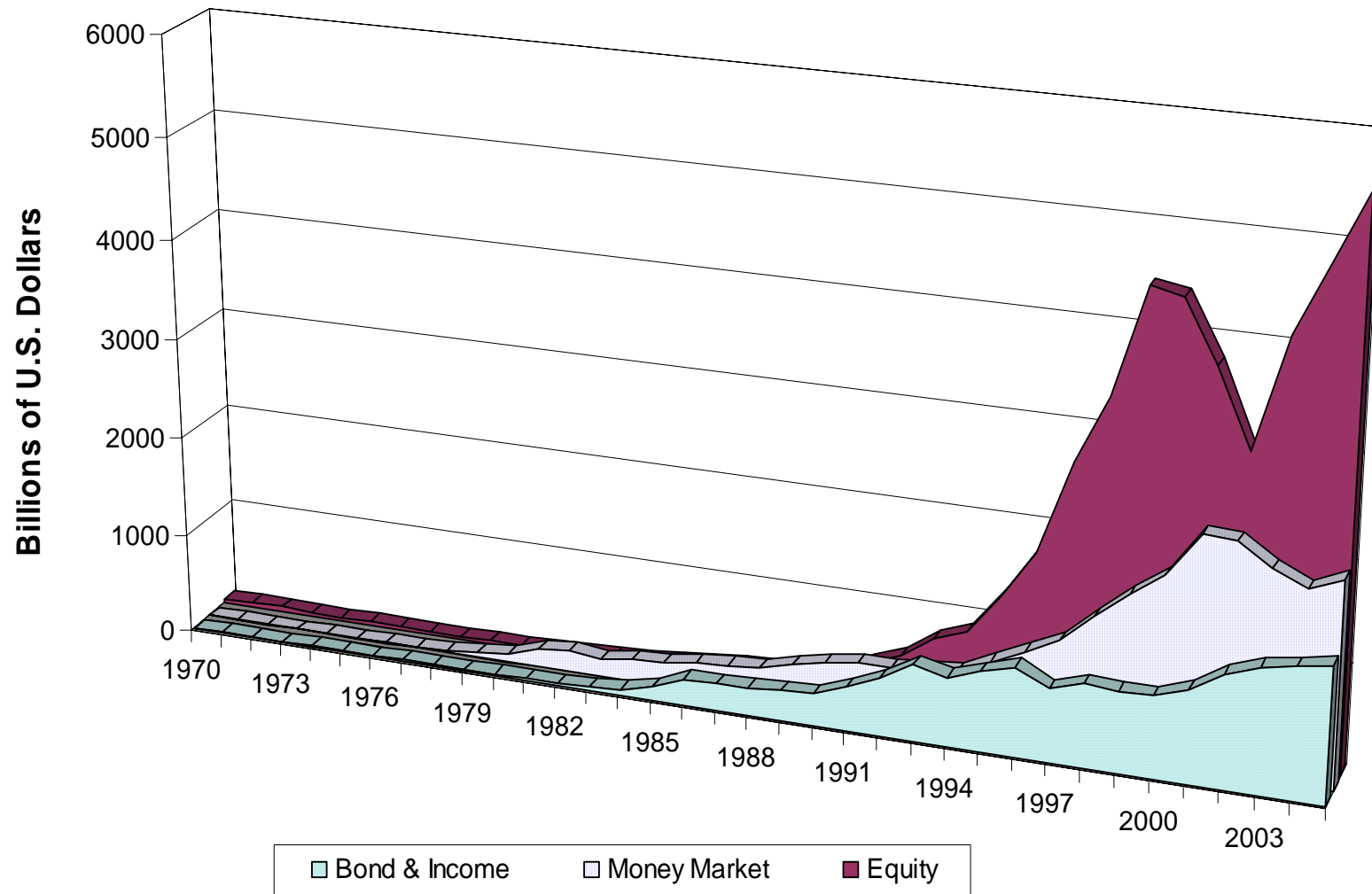
U.S. Mutual Funds by Type (market value)



Based on 12/05 Assets

Total \$8.91 Trillion

Growth of Mutual Funds by Type



Growth of U.S. Mutual Funds by Type (Market Value)

Year	Money Market	Bond & Income	Equity	Total
1978	61	150	294	505
1981	179	180	306	665
1986	485	654	701	1840
1991	821	1389	1217	3427
1996	988	2679	2626	6293
1999	1045	2266	4497	7808
2000	1042	2262	4942	8246
2001	1015	2091	5201	8307
2002	989	2040	5240	8269
2003	973	2043	5110	8126
2004	941	2043	5053	8037
2005	871	2015	5191	7977

5 year average
annual growth

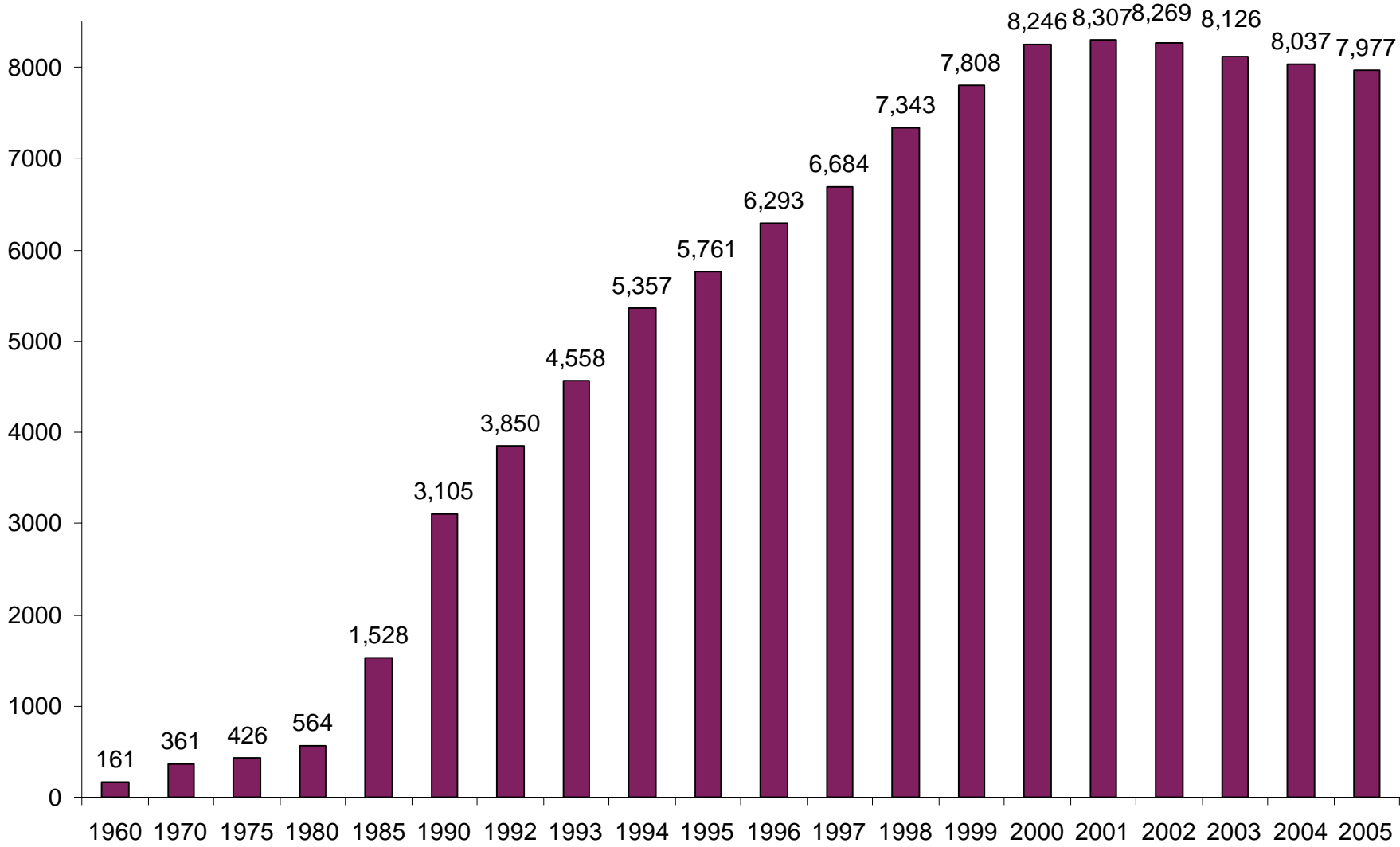
2.05%

10.8%

4.8%

4.4%

NUMBER OF MUTUAL FUNDS



Growth of U.S. Mutual Funds by Type

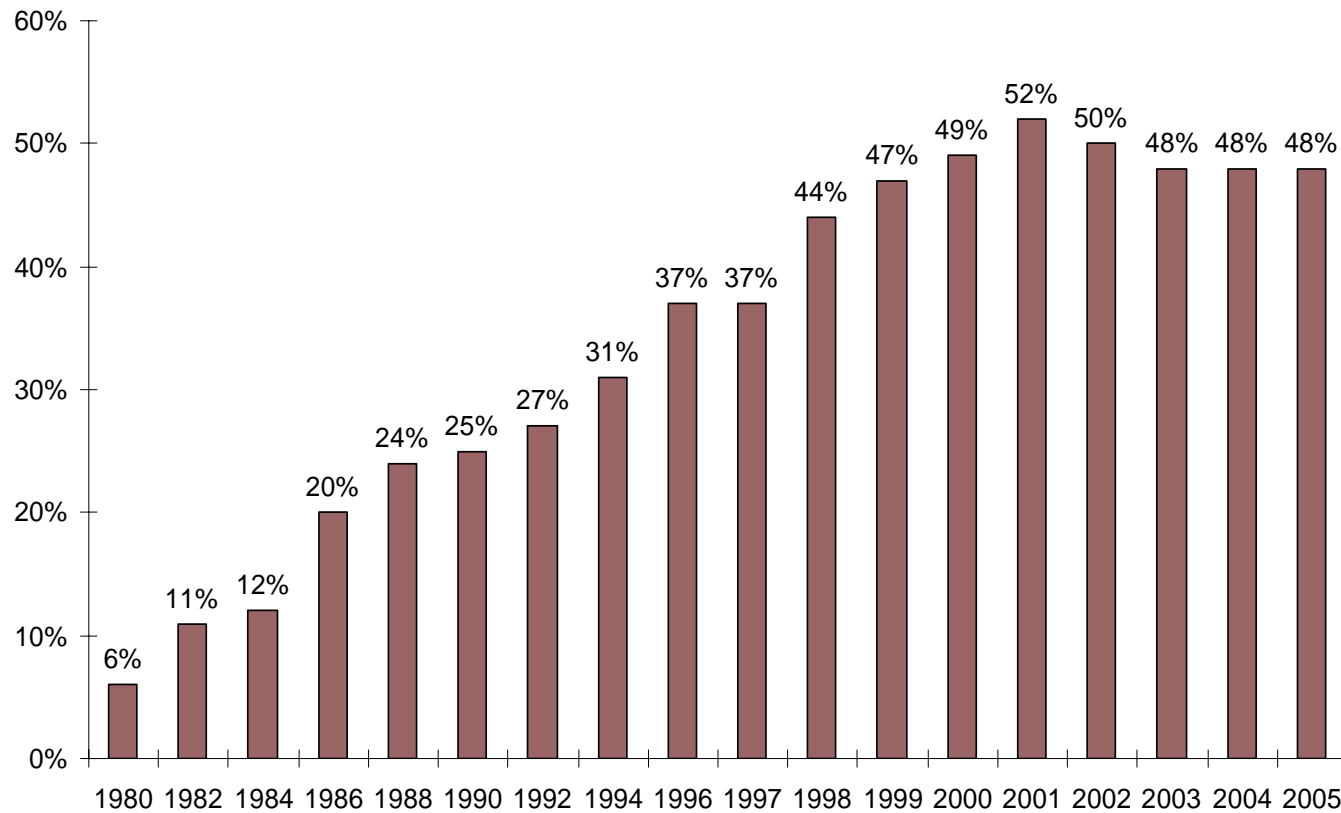
(Number of Funds)

<i>Year</i>	<i>Money Market</i>	<i>Bond & Income</i>	<i>Equity</i>	<i>Total</i>
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Number of Mutual Fund Complexes

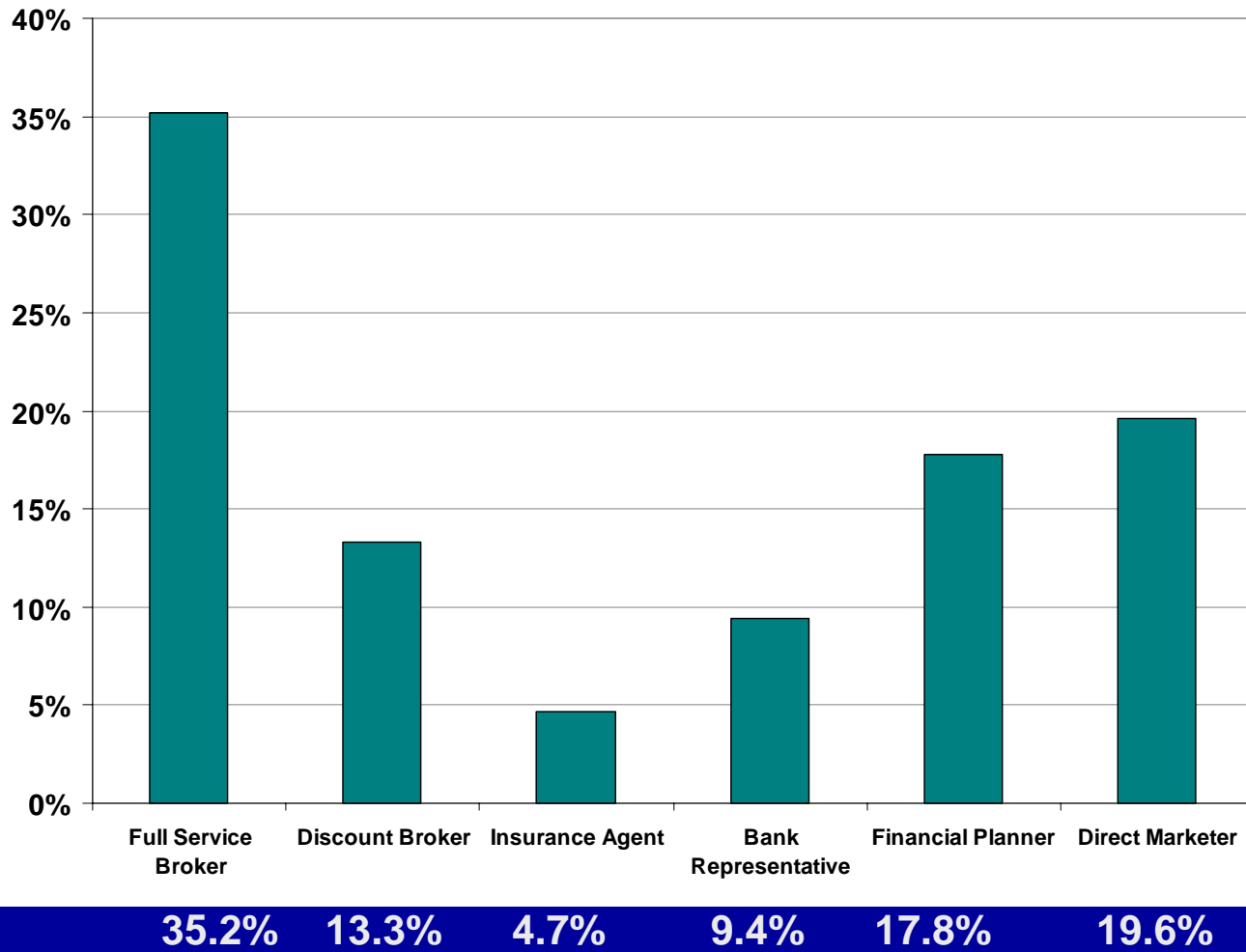
- Over 400 in 2004
- Top Ten Companies Hold 56% of Assets
- Top 25 Complexes 76% of Assets

Percent of U.S. Households Owning Mutual Funds



- 54 million households owned mutual funds
- 35.6 million households owned within employee sponsored plans
- 38.9 million households owned outside employee sponsored plans

Channels Used for Mutual Fund Investments (Percent of Respondants)



***1/3 Online**

2/3 Office

	# Funds	Expense Ratio	Total Load	12B-1 Fees
All Funds	13529	1.37	2.18	0.40
All Equities	9311	1.51	2.20	0.41
All bonds	4218	1.10	2.13	0.37

	# Funds	Expense Ratio	Total Load	12B-1 Fees
Aggressive Growth	245	1.65	2.28	0.43
Growth	3124	1.43	2.23	0.41
Growth and Income	995	1.25	2.13	0.37
Equity Income	246	1.36	2.31	0.42
Small Company	910	1.53	1.95	0.37
International Stock	1758	1.81	2.32	0.43

	# Funds	Expense Ratio	Total Load	12B-1 Fees
All Equities				
No Load	4214	1.15	0.00	0.12
Front Load	2385	1.47	4.79	0.32
Deferred Load	2931	2.11	3.27	0.93
All Bonds				
No Load	1646	0.75	0.00	0.08
Front Load	1252	0.97	3.89	0.24
Deferred Load	1439	1.62	3.02	0.84

**Worldwide Assets of Open-end Investment Companies
(millions of U.S. dollars)**

	1997	2004	Annual % Growth
Australia	42,909	653,073	50.0
Canada	197,985	413,772	11.1
France	495,774	1,370,954	15.6
Germany	146,888	295,997	10.5
Ireland	22,728	467,620	54.1
Italy	209,410	511,733	13.6
Japan	311,335	399,462	3.6
Luxembourg	390,673	1,396,131	19.9
United Kingdom	253,683	492,726	10.0
Total Non-USA	2,822,796	8,045,556	16.1
U.S.	4,468,201	8,106,873	8.9

Only Countries with assets over 2 m in 2004 included in the list
Total Non-USA includes 39 countries for which ICI collect data

The Retirement Market and How it Invests

Total Retirement Market (2004)

- 12.9 Trillion Dollars
- 3.1 T or 24% in Mutual Funds
- 9.8 or 70% Managed by Pension Funds, Banks, Insurance Companies, and Brokerage Firms

Retirement Market (2004)

	Shares Invested In Mutual Funds	Share in 1990	Size in Trillion	% of RM
Defined Contribution Plan Primarily 401 (k) Plans (68% of Total)	50%	9%	3.2 T	25%
Private Defined Benefit Plan	1%		1.8 T	14%
Government Plans			3.1T	24%
IRA's	43%	24%	3.5 T	27%
Fixed and Variable Annuity			1.2 T	9%

Its Importance to the Mutual Fund Industry

How Important is the Retirement Market to Mutual Funds?

- 1990: 19% Owned by Retirement Accounts
- 2004: 38% Owned by Retirement Accounts
- 2004: 50% of Long Term Funds

Growth Rate of Retirement Plan Assets in Mutual Funds (Assets in billions of dollars)

Type of Retirement Plan	Assets in 1992	Assets in 2004	Growth Rate Per Year
IRAs	237	1487	16.5
401(k) Plans	82	1086	24.0
403(b) Plans	74	294	12.2
Other – Private Retirement Plans	44	186	12.8

How Are Retirement Assets Invested By Retirement Market (2004)

Common Stock – Domestic	60%
Common Stock – Foreign	10%
Bonds	10%
Money Market Funds	8%
Hybrid Funds	12%

How Plans Allocate Their Mutual Fund Investments (2004)

Type of Retirement Plan	Equity Domestic	Foreign	Bond	Hybrid	Money Market	Total Dollars (billions)
IRAs	56.8%	9.9%	11.8 %	11.8%	9.7%	\$1,487
401(k) Plans	60.9%	10.5%	8.7%	13.1%	6.9%	\$1,086
403(b) Plans	74.3%	7.5%	6.1%	7.5%	4.4%	\$294
Other – Private Retirement Plans	59.1%	8.6%	11.8 %	11.3%	9.7%	4186
Total	60.1%	9.8%	10.2 %	11.8%	8.2%	\$3,053

- **Customer Services – including record keeping, the ability to move money around among funds, and daily valuation**
- **Low Transaction Costs**
- **Low Cost Diversification**
- **Professional Management (security diversification)**

- Open end mutual funds sell at the net asset value.

- If “good management” exists, a fund which has superior management will sell at net asset value. If “bad management” exists, a fund which has inferior management will sell at net asset value.

- Management is not priced.

- Counter argument.

Average Performance

	a	β_M	β_S	β_G	β_B	η^2
Open End	-0.648	0.850	0.314	0.229	0.090	0.886
Non-surviving	-2.748	0.781	0.391	0.290	0.095	0.801

Ranked By Previous 1-Year Alpha

Decile	1 year alpha
Bottom 1	-2.592
2	-1.080
3	-0.444
4	-0.528
5	-0.240
6	-0.468
7	0.528
8	0.060
9	-0.156
Top 10	0.816
Spearman Rank	0.891 ^{**}
Top – Bottom	3.408 [*]

* Significant at 1% level

** Significant at 5% level

Ranked By Previous Expense Ratio

Decile	1 year alpha
High	-1.716
2	-0.948
3	-0.828
4	-0.012
5	-0.024
6	0.120
7	0.564
8	0.156
9	-0.216
Low	-0.096
Spearman Rank	0.552
Low – High	1.620*

* Significant at 1% level

Realized Annual Three Year Four Index Alpha Predicted By Expense Ratio

Decile	Exp Ratio†
High	-1.716
2	-0.948
3	-0.828
4	-0.012
5	-0.024
6	0.120
7	0.564
8	0.156
9	-0.216
Low	-0.096
Spearman Rank	0.552
Low – High	1.620*

† Expense ratios are reported from high to low

* Significant at 1% level

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

Decile (t)	t	t+1	t+2	t+3	t+4
1	1.357	1.405	1.413	1.415	1.400
2	1.050	1.061	1.068	1.084	1.072
3	1.018	1.007	1.031	1.064	1.115
4	0.960	0.968	0.984	.0998	1.024
5	0.971	0.994	1.029	1.049	1.064
6	0.955	0.962	0.970	0.967	0.959
7	0.973	0.986	0.998	1.007	1.050
8	1.035	1.016	1.053	1.080	1.119
9	1.027	1.043	1.037	1.055	1.028
10	1.042	1.052	1.048	1.058	1.057
Mean	1.039	1.049	1.063	1.078	1.089

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

Decile	% Change in Cash Flow
1	-15.4
2	-11.2
3	-5.1
4	-5.0
5	-3.7
6	-2.4
7	4.5
8	6.6
9	12.8
10	29.0
Spearman Rank	1.00*
Top – Bottom	1.620*

* Significant at 1% level

Annual Realized Cash Flow Weighted Alpha

Buy at End of Quarter

Return on Cash Flows	Holding Period		
	1Quarter	1Year	3 Years
Positive	0.3516	0.2892	0.0396
Negative	0.8544	0.2244	0.0984
Weighted Avg.	0.5280	0.2652	0.0660

- Index funds outperform actively managed funds of the same risk

Active funds 65b.p. below indexes.

Charge fee of 130 b.p.

Bring information worth 65b.p. but charge 130b.p.

- Funds that charge higher fees tend to do worse than funds that charge lower fees
- Funds that perform well have a slight tendency to continue to perform well
Funds that perform really badly tend to continue to perform really badly

- Investors seem to be aware of this.

Funds that perform well have higher subsequent cash flows.

Funds that perform badly have high cash out flows.

- The result of this is that new investment and disinvestment earns a risk adjusted return slightly above that which would be earned on a set of index funds with the same risk.

- A sophisticated clientele.
- A disadvantaged clientele.
 - Unsophisticated investors
 - Institutionally disadvantaged investors
 - Tax disadvantaged investors

