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FACTORS THAT AFFECT MUTUAL FUND GROWTH

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Introduction

The substantial growth of the mutual fund industry during the last few years has attracted the attention of students of finance, economics and public policy alike. Net assets managed by such funds have grown from approximately \$450 million in 1940 to more than \$38 billion by June of 1966.* During 1965 the mutual fund industry funneled some \$5.2 billion of new (primarily equity) funds into the capital markets; more than twice the \$2.3 billion in new equity raised by all non-financial U. S. corporations during the year.** Growth of the industry has not been uniform, however, but has been concentrated among a relatively small number of highly successful funds.***

A portion of the industry's growth can be traced to appreciation in the market value of the securities under its management. Another and far larger portion, however, represents net new investment by the public in mutual fund shares. Reasons for the latter source of growth, and especially for its uneven distribution among the industry's participants, are examined in the present study.

Methodology

Broadly speaking, any of a wide variety of forces may be expected to have an impact on mutual fund growth. Some of these, such

* Securities and Exchange Commission, Public Policy Implication of Investment Company Growth, 89th Congress, Second Session, House Report #2337, U. S. Government Printing Office, Washington, D. C., 1966.

** Ibid.

*** Ibid.

as growth in gross national product, stock prices, and disposable personal income may be expected to be largely time-related phenomena, and to bear relatively uniformly on all members of the industry. Others, such as fund performance, sales effort, and size may be expected to vary widely across funds in the industry. Cross-section analyses, rather than the analysis of economic aggregates over time, are required to detect the latter source of variation in mutual fund growth. By using successive cross sections over time, however, an effort also is made to control at least roughly for important, time-dependent phenomena.

Simple correlations between net, new money inflows and any of a broad range of potential explanatory variables can be helpful in isolating those factors that, in a statistical sense, appear most closely related to mutual fund growth. Care must be taken, however, to avoid confusing statistical association with causality. There is, clearly, no fool-proof guarantee that such confusion may be avoided. By simultaneously examining the relationship between a dependent variable (such as net new investment in mutual fund shares) and as broad a range as possible of potential explanatory variables (such as performance, sales effort and general economic growth), the danger of spurious association can, at least, be reduced. Accordingly, a least squares regression model that simultaneously measures partial relationships between dependent and independent variables is employed in the present study.

Defining:

Y as a vector of observations on net new money, the variable whose behavior is to be explained,

X as a matrix of observations on a set of explanatory variables thought to affect the flow of new funds into an investment company,

b as a vector of structural parameters that relates expected values of Y to X, and

U as a vector of stochastic error terms,

the basic relationship hypothesized can be summarized as

$$\underline{Y} = \underline{X} \underline{b} + \underline{U}.$$

Measures of estimation efficiency can be summarized through numerous statistics. A common measure of an equation's explanatory power, R^2 , may be interpreted as the percentage of a dependent variable's total variation that can be explained through a given set of explanatory variables. Similarly, each independent variable's contribution to an equation's explanatory power often is measured by the familiar t-ratio,

$$t = b/\sigma_b,$$

where b is the variable's regression coefficient, and σ_b is the coefficient's sample standard deviation. Measures of R^2 greater than .10 or .20 are sufficiently large to suggest the presence of significant (non-zero) relationships between Y and X over cross sectional samples such as those encountered here; while t-ratios greater than 1.0 or 2.0 generally are interpreted as identifying meaningful (non-zero) partial relationships between dependent and independent variables. Squared multiple correlation coefficients, regression coefficients, and t-ratios, accordingly, are reported in the analyses that follow.

Scope of the Study

This study's -- indeed any study's -- scope can be defined along at least three dimensions: its units of observation (in this case mutual funds), the time period over which observations are collected, and the variables by which each observation is characterized.

The present study employs observations on 169 mutual funds, approximately 45% of the funds in existence during June, 1966. A better idea of the sample's significance in terms of the industry's overall size, however, can be gained by noting that the companies covered received some \$3.2 billion in net new investment during 1965, more than 60% of the industry's new money during the year. In terms of total assets managed, this sample contained \$30.2 billion at the end of 1965, or 79% of the industry's total assets. Similarly, companies covered by the present sample contain 5.9 million shareholder accounts, or 88% of the industry's accounts. By any measure, therefore, the sample covers a significant portion of the investment company industry.

Data is collected on each fund over a three-year period of time, from 1963-65. Data limitations, especially regarding portfolio turnover, constitute the primary constraint on the sample's coverage.

Data elements by which each fund and year are characterized include percentage increases in gross national product, total personal income, and Standard and Poor's 500 Stock Security Price Index, plus 9 measures specific to each fund, summarized in Table I. Most of the variables in the Table are self-explanatory. Total net assets and numbers of shareholders constitute rough indications of a fund's size.

Table I

R A W D A T A

<u>Factor Description</u>	<u>Symbol</u>
Total Net Assets	TA
Net Asset Value	NAV
Portfolio Turnover Ratio	PTO
Dividends	D
Capital Gains	CG
Shareholders	S
Expense Ratio	ER
Sales Charge	SC
Fund Objective	OBJ

Net asset value, dividends and capital gains distributions provide the per-share data out of which various performance measures are formed. Expense ratio is defined as the ratio of expenses actually paid by the fund, as a per cent of total net assets. It includes management fees, the salaries of fund employees, office expenses and other expenses not provided by the fund's advisor. Expense ratio, however, does not include services provided to the fund or its advisor in return for brokerage. Sales charge is defined as the maximum load, applicable to a fund's smallest (non-contractual plan) investors. Portfolio turnover is calculated by dividing the lesser of sales or purchases, excluding government securities and other short-term obligations, by the average of total net assets over a year; and is the same as that reported to the Securities and Exchange Commission on Form N-1R.* Fund objective is that adopted by Arthur Weisenburger and Company.**

From the raw data described above, a series of working data elements is developed for each observation, and summarized in Table II. Certain variables -- specifically, total gain, dividend yield, capital gains distribution, unrealized gain, expense ratio and portfolio turnover -- are lagged by one year to more closely approximate the information available to an investor at the time of a fund purchase decision. A complete set of raw and working data elements is summarized for a single fund in Table III.

* Securities and Exchange Commission, Form N-1R, Annual Report of Registered Management Investment Companies under the Investment Company Act of 1940 and the Securities and Exchange Act of 1934, January 25, 1965; item 1.25(a).

** Wessman, L., Editor, Investment Companies, Arthur Weisenburger and Company, New York, 1966.

Table II

Working Data

<u>Variable</u>	<u>Symbol</u>
Net New Investment, as per cent of total assets	$NNI\%$
Net New Investment, per cent, lagged one year	$NNI\%_{t-1}$
Percentage growth in Standard and Poor 500 Stock Index	SP
Dividend Yield, lagged one year	DY_{t-1}
Capital Gain Yield, lagged one year	CGY_{t-1}
Unrealized Gain, lagged one year	UG_{t-1}
Total Gain, lagged one year	TG_{t-1}
Portfolio Turnover, lagged one year	PTO_{t-1}
Sales Charge	SC
Expense Ratio, lagged one year	ER_{t-1}
Total Assets, lagged one year (in logarithms)	TA_{t-1}
Fund Objective	OBJ

Table III

Aberdeen Fund

Raw Data

	TA	NAV	WI	PTO	DY	CG	S	ER	SC	OBJ
1962	22564	2.04	-15.4	14.58	.036	.024	17386	.82	8.5	0100
1963	28003	2.39	20.5	13.23	.037	.030	17188	.78	8.5	0100
1964	35024	2.58	11.0	16.33	.038	.035	17111	.80	8.5	0100
1965	43374	2.99	20.2	11.83	.043	.065	15965	.80	8.5	0100

Working Data

	NNI%	TG-1	DY-1	CGY-1	UG-1	SP	ER-1	SC	PTO-1	Log TA-1	OBJ	NNI%-1
1963	6.947	-15.322	1.45	.96	-17.741	18.89	.82	8.50	14.58	10.0241	0100	12.2
1964	17.122	20.441	1.81	1.47	17.156	12.97	.78	8.50	13.23	10.2400	0100	6.9
1965	7.949	11.004	1.58	1.46	7.949	9.06	.80	8.50	16.33	10.4637	0100	17.1

Some of the variables described above may require further comment. Although it would be desirable to characterize each fund and year by a complete spectrum of the variables that affect net new money inflows during the year, it must be recognized that any characterization will, in fact, be incomplete. To reduce the danger of introducing spurious relationships between measured variables and other characteristics that should be, but are not included in an independent variable set, an effort is made to proxy excluded characteristics (such as the size and efficiency of a fund's sales force), by including in each equation a lagged value of its dependent variable. The rationale underlying such a variable's use may be traced to a belief that factors excluded from a given year's set of independent variables are likely to have been operative during the preceding year, as well. Analyses of the relationships reported below, excluding this effect, indicate the presence of serial correlation between observed residuals, and accordingly, support such a variable's use.*

A second broad class of measurement problems concerns the quantification of variables, such as a fund's objective, that do not lend themselves to continuous measurement. A fund either is a growth fund or is not; or a maximum performance fund, or not; or an income fund, or not, etc. To the extent that labels possess sales appeal, an ability to measure the appeal inherent in a fund's objective may be desirable. Accordingly, a set of dummy variables is defined for each of 4 Weinsenburger objectives: maximum gain, growth, growth-income,

* For further discussion of this problem, see L. M. Koyck, Distributed Lags and Investment Analysis, North Holland Publishing Company, Amsterdam, 1954; and L. R. Klein, "The Estimation of Distributed Lags," Econometrica, 26, 4, 1958.

and income. Should a fund fall into one of these categories the variable corresponding to the category assumes a value of 1.0, if not its value is 0. Each fund, of course, falls into one and only one category. To avoid singularity, of course, one objective (in this case the Growth-Income-Stability amalgam) must be excluded from the set.* Coefficient estimates for included objectives, accordingly, are interpreted as the difference between a given objective's sales appeal and that enjoyed by a Growth-Income-Stability investment objective.

An effort also is made to reduce the enormous variation in new money attributable only to fund size, by transforming total asset measures to logarithms, and standardizing each equation's dependent variable, net new investment, to a percentage of the fund's beginning-of-year total assets.

Analyses

As indicated earlier, the study is designed to investigate the relationship between percentage growth in investment company assets through net new investment, and a wide variety of both general economic conditions and specific fund characteristics. Broadly speaking, five general categories of factors are investigated: economic conditions, sales effort, fund performance, fund size, and fund objective. Initial exploratory analyses eliminate percentage growth in such general economic characteristics as gross national product and total personal income

* See D. Suits, "Use of Dummy Variables in Regression Equations," Journal of the American Statistical Association, 52, 28, 1957.

from further consideration. An example of the type of finding uncovered is summarized in Table IV, where all 468 usable observations on 169 mutual funds are pooled in a single regression model.* Four separate equations, each employing a different measure of performance (total gain, dividend yield, capital gains yield, and unrealized gain) are summarized. Regression equations, t-ratios, R^2 corrected for degrees of freedom, and sample size are reported for each equation.

Each equation's statistical significance is considerable. Differences in R^2 are trivial, leading to no preference for one equation, and therefore one measure of performance, over another. Comparisons between t-ratios for different parameters, however, highlight the overwhelming importance of lagged net new investment as an explanatory variable; suggesting the existence of both relevant, excluded, independent variables and considerable stability in the forces that determine the distribution over time of new money inflows between companies in the industry. The lagged variable's considerable explanatory power also tends to reduce confidence in the validity of equations (over this set of data) that do not contain such a variable.

Portfolio turnover, fund size, expense ratio, and fund performance also appear to be highly significant determinants of the distribution of net new investment between competing funds. Certain fund objectives such as growth and growth-income also appear to have at least moderate investor appeal. Market action, measured by percentage change in the Standard and

* Thirty-nine missing data elements, primarily portfolio turnover, account for the discrepancy between 468 useable observations and $3 \times 169 = 507$ expected data points for 169 funds over a three-year period of time.

Table IV
 MULTIPLE REGRESSION MODEL RESULTS
 DEPENDENT VARIABLE, NNI_t^*
 1963-1965

MODEL ⁺	All Funds	Constant	Performance			Market			Expenses			Size			Fund Objectives			R ²	N
			TC _{t-1}	DY _{t-1}	CGY _{t-1}	UG _{t-1}	SP _t	ER _{t-1}	SC _t	PTO _{t-1}	TA _{t-1}	MG	G	G1	I	NNI _{t-1} [%]			
All Funds	T	b	49.66 (1.96)	.48 (2.39)			.55 (.79)	-29.31 (-2.53)	.42 (.67)	.40 (3.96)	-4.74 (-2.94)	5.75 (.80)	10.05 (1.77)	6.32 (1.14)	.67 (.10)	.60 (12.41)	.3055	468	
	D	b	39.40 (1.46)	7.27 (2.29)			-.46 (-.93)	-24.63 (-2.11)	.21 (.33)	.46 (4.49)	-4.50 (-2.79)	16.58 (1.87)	19.34 (2.69)	9.33 (1.63)	-10.97 (-1.24)	.61 (12.46)	.3048	468	
	C	b	64.18 (2.61)		-1.11 (-1.27)		-.63 (-1.25)	-25.56 (-2.17)	.43 (.67)	.44 (4.28)	-4.25 (-2.60)	2.62 (.35)	8.23 (1.44)	6.08 (1.09)	.01 (.00)	.59 (12.19)	.2993	468	
	U	b	50.96 (2.03)			.48 (2.46)	.52 (.77)	-28.40 (-2.46)	.44 (.69)	.40 (4.03)	-4.62 (-2.87)	4.04 (.56)	9.00 (1.59)	6.07 (1.09)	.75 (.11)	.60 (12.39)	.3060	468	
Growth Oriented Funds*	T	b	187.08 (3.10)	.46 (1.34)			-.35 (-.23)	-69.87 (-2.83)	-.02 (-.02)	.57 (2.95)	-13.12 (-3.31)	-7.78 (-.72)				.71 (9.24)	.3836	176	
	D	b	174.72 (2.91)	17.31 (2.25)			-1.16 (-.98)	-65.63 (-2.69)	-.01 (-.01)	.64 (3.35)	-13.72 (-3.49)	-2.20 (-.20)				.73 (9.52)	.3953	176	
	C	b	200.72 (3.36)		-.99 (-.58)		-1.70 (-1.45)	-65.73 (-2.61)	-.12 (-.08)	.60 (3.09)	-12.49 (-3.12)	-8.86 (-.81)				.71 (9.12)	.3782	176	
	U	b	187.66 (3.11)			.44 (1.32)	-.44 (-.29)	-68.65 (-2.79)	-.04 (-.03)	.57 (2.97)	-12.96 (3.28)	-8.36 (-.78)				.71 (9.22)	.3834	176	
Stability Oriented Funds*	T	b	-.64 (-.05)	.27 (1.41)			.67 (1.29)	-7.92 (-1.00)	.06 (.13)	.39 (4.66)	-.79 (-.84)					.14 (2.37)	.1250	292	
	D	b	-2.44 (-.17)	2.75 (1.33)			.11 (.34)	-5.50 (-.70)	-.06 (-.13)	.42 (4.97)	-.63 (-.68)					.13 (2.28)	.1243	292	
	C	b	4.18 (.31)		-.73 (-1.08)		.09 (.26)	-4.83 (-.60)	.11 (.25)	.43 (4.93)	-.37 (-.39)					.13 (2.23)	.1224	292	
	U	b	-.44 (-.03)			.29 (1.54)	.69 (1.37)	-7.51 (-.95)	.08 (.17)	.40 (4.75)	-.72 (-.78)					.14 (2.38)	.1261	292	

* Growth oriented funds contain all funds classified by Weisenberger as Maximum Gain or Growth. Stability oriented funds exhaust Growth-Income, Income, and Growth-Income-Stability Investment objectives. See L. Weissman, *op.cit.*

⁺T, D, C, and U indicate the use of total gain, dividend yield, capital gains distributions, and unrealized gain, respectively, as measures of performance.

Poor's 500 Stock Index, and sales charge, surprisingly, exhibit little explanatory power. Patterns such as these appear time and again in the 50 odd equations, covering various subsets of the basic population, analyzed during the study.

Two such subsets, one containing 176 observations on 65 growth and maximum performance funds, the other containing 292 observations on 104 growth-income, income, and growth-income-stability funds, also are summarized in Table IV. The overwhelming importance attached to lagged net new investment again is apparent among growth-oriented funds, as is the relative importance of sheer size, portfolio turnover, expense ratio, and alternative measures of performance. The lesser importance attached to lagged net new investment among stability-oriented funds, and the rare appearance of market action per se as a significant explanatory variable, is surprising. This finding suggests, perhaps, that such funds have less enthusiastic followings among either investors or salesmen (or perhaps among both), and that relatively risk averse investors may be more sensitive to current market movements.

The strength of portfolio turnover, expense ratio, and performance as explanatory variables reappears in both sets of equations; with portfolio turnover again carrying heavy weight, performance again carrying a positive sign, expense ratio a negative sign, and sales charge an ambivalent coefficient.

No attempt will be made here to summarize in detail the 44 other equations, based on 11 population subsets (stratified according to sales charge, objective and fund size) covered by the study. Tables summarizing these results are attached for the interested reader as an Appendix. A

summary of sign patterns displayed by each variable over the entire set of stratifications, however, is illustrated in Table V.

The pattern displayed is remarkably consistent. Portfolio turnover carries a significant positive sign in each of the 56 equations examined during the study. Lagged net new investment also carries a positive sign in each set of equations. Measures of performance, except capital gains distributions, also carry consistently positive signs; with negative signs for capital gains distributions to shareholders suggesting that tax sensitive higher income investors may, in fact, prefer unrealized to realized capital gains.

The fact that total gain generally carries a strong positive sign, and expense ratios and sales charges generally carry either very weak or negative signs, suggests that mutual fund investors behave as though they are relatively well informed.* An alternative hypothesis, of course, is that funds displaying good performance records, low sales charges and management fees, other things being equal, are more easily sold.

Portfolio turnover, however, requires further explanation. One hypothesis frequently advanced is that high turnover is positively associated with fund performance; and indeed, simple correlation coefficients between turnover and total gain are consistently positive, albeit small. The possibility that turnover, in fact, proxies performance is reduced, however, by the fact that at least one measure of performance enters each equation directly. The conclusion is inescapable, therefore, that in addition to

* Also implicit in the positive sign for total gain is a belief that investors tend to extrapolate past performance into the future.

Table V
 SUMMARY OF THE DIRECTION AND SIGNIFICANCE OF INDEPENDENT VARIABLES
 DEPENDENT VARIABLE, NMI_t^*
 1963-1965

Model	Variable	All Funds *			Growth Oriented			Stability Oriented			Sale Charges			Fund Objective			Fund Size																
		T	D	C	T	D	C	T	D	C	None	High	MG	G	GI	I	GIS	Large	Medium	Small	T	D	C	U									
X_{1a}	TG_{t-1}	+			+			+			+			+			+			+			+										
X_{1b}	DY_{t-1}	+			+			+			+			+			+			+			+			+							
X_{1c}	GGY_{t-1}	-			-			-			-			-			-			-			-			-							
X_{1d}	UG_{t-1}	+			+			+			+			+			+			+			+			+							
X_2	SP_t	+			+			+			+			+			+			+			+			+							
X_3	ER_{t-1}	-			-			-			-			-			-			-			-			-							
X_4	SC_t	+			+			+			+			+			+			+			+			+							
X_5	PTO_{t-1}	+			+			+			+			+			+			+			+			+							
X_6	$Log TA_{t-1}$	+			+			+			+			+			+			+			+			+							
X_7	MG	+			+			+			+			+			+			+			+			+							
X_8	G	+			+			+			+			+			+			+			+			+							
X_9	GI	+			+			+			+			+			+			+			+			+							
X_{10}	I	+			+			+			+			+			+			+			+			+							
X_{11}	NMI_{t-1}^*	+			+			+			+			+			+			+			+			+							
Number of Observations		468			176			292			70		379			69		107		113		57		122			116		123		118		111
Funds		169			65			104			24		138			26		39		40		21		43			45		51		53		49

Dot Superscripts indicate coefficients carrying t-ratios greater than 1.0.

* T, D, C, and U indicate the use of total gain, dividend yield, capital gains distributions, and unrealized gain, respectively, as measures of performance.

whatever positive impact turnover may have on a fund's performance, it also carries considerable significance in and of itself.

Conclusions

No sample of companies or time periods ever can pretend universal validity. The present sample, clearly, is weighted toward relatively large mutual funds, and covers only a very brief and prosperous period in the industry's development. Accepting these limitations, however, the pattern that emerges is remarkably consistent -- too consistent to be easily attributed to a statistical fluke.

Certain widely held beliefs that mutual fund investors are relatively uninformed are not supported. Investors, apparently, are more sensitive to performance, sales charges, and expense ratios than commonly believed. In particular the positive inducement to a salesman provided by high sales charges appears in most instances to be (at least) offset by investor reluctance to bear such charges. The study also suggests, however, that the brokerage generated by high portfolio turnover, while not perceived by investors as a management expense, may be perceived by brokers and their employees as an important source of revenue.

Other findings, such as the popularity of growth-oriented funds during the 1963-5 time period, and the sensitivity of investors in income funds to expense ratios, sales charges and market behavior, also are of interest. The fact that small funds, with few exceptions, tend to grow more rapidly than large funds, and that new money inflows tend to persist over time, while hardly surprising, is nevertheless encouraging.

Although large components of variance remain unexplained by each equation, the study's ability to subject the present set of hypotheses to systematic empirical test is heartening indeed. Some findings, such as the importance of portfolio turnover and the unimportance of sales charges and market action, are quite surprising; while other findings are entirely consistent with prior beliefs. Some findings, of course, are quite tentative, and others are of value largely for the questions they raise rather than answer. But then, this is the slow and painful way knowledge generally accumulates.

APPENDIX

Table A-1

MULTIPLE REGRESSION MODEL RESULTS
DEPENDENT VARIABLE, $NIIT_t$, 1963-1965
STRATIFIED BY FUND OBJECTIVE

MODEL ⁺	Constant	Performance			Market			Expenses			Size			Fund Objectives			
		TC _{t-1}	DY _{t-1}	CGY _{t-1}	UG _{t-1}	SP _t	ER _{t-1}	SC _t	PTO _{t-1}	TA _{t-1}	MG	G	GI	I	NIIT _{t-1}	R ²	N
Maximum Gain	T b	152.72 (1.37)	.53 (1.12)			-1.36 (-.54)	-25.90 (-.72)	-.66 (-.28)	.36 (1.33)	-11.44 (-1.46)					.52 (3.55)	.1812	69
	D b	118.48	19.42 (1.57)			-2.75 (-1.38)	-13.10 (-.57)	-1.31 (-.57)	.54 (1.95)	-11.62 (-1.49)					.52 (3.53)	.1966	69
	C b	172.55 (1.55)		-.76 (-.31)		-3.10 (-1.52)	-22.73 (-.60)	-.98 (-.42)	-.40 (1.49)	-10.87 (-1.36)					.52 (3.50)	.1656	69
	U b	153.62 (1.37)			.49 (1.07)	-1.55 (-.63)	-24.11 (-.67)	-.70 (-.30)	.36 (1.33)	-11.22 (-1.43)					.52 (3.52)	.1798	69
	T b	230.92 (2.91)	.43 (.82)			.51 (.25)	-125.13 (-3.34)	.60 (.32)	.90 (3.11)	-15.74 (-3.23)					.78 (8.51)	.4900	107
Growth*	D b	233.67 (3.09)	29.78 (2.73)			.38 (.26)	-141.13 (-3.83)	1.07 (.60)	.85 (2.95)	-19.06 (-3.90)					.81 (9.11)	.5224	107
	C b	245.06 (3.15)		-2.95 (-1.17)		-.64 (-.45)	-121.91 (-3.27)	.68 (.37)	.98 (3.31)	-15.07 (-3.11)					.76 (8.53)	.4936	107
	U b	229.75 (2.90)			.49 (.94)	.65 (.33)	-125.08 (-3.34)	.59 (.32)	.91 (3.16)	-15.68 (-3.22)					.77 (8.52)	.4911	107
	T b	14.27 (.72)	-.13 (-.73)			-.68 (-1.17)	9.06 (.96)	.10 (.23)	.11 (1.20)	-.43 (-.38)					.31 (2.95)	.1127	113
	D b	4.43 (.22)	1.97 (.79)			-.26 (-.78)	8.54 (.94)	-.06 (-.14)	.12 (1.25)	-.47 (-.42)					.30 (2.87)	.1135	113
Income*	C b	9.47 (.50)		-.29 (-1.53)		-.33 (-1.01)	9.36 (.99)	.13 (.30)	.11 (1.21)	-.45 (-.40)					.31 (2.94)	.1106	113
	U b	12.84 (.66)			-.09 (-.56)	-.57 (-1.05)	8.78 (.93)	.07 (.16)	.11 (1.16)	-.45 (-.40)					.31 (2.96)	.1109	113
	T b	32.34 (.39)	1.54 (1.47)			3.44 (1.69)	-73.07 (-1.40)	-3.02 (-.98)	1.20 (3.31)	-3.12 (-.59)					.07 (.57)	.2035	57
	D b	22.34 (.26)	9.83 (1.43)			.98 (.63)	-63.54 (-1.22)	-3.21 (-1.03)	1.45 (3.68)	-3.09 (-.57)					.02 (.19)	.2018	57
	C b	58.14 (.69)		-1.27 (-.26)		1.34 (.84)	-63.59 (-1.20)	-3.05 (-.94)	1.25 (3.30)	-1.87 (-1.20)					.02 (.18)	.1695	57
Growth-Income-Stability*	U b	39.04 (.47)			1.30 (1.27)	3.10 (1.54)	-70.87 (-1.35)	-3.13 (-1.00)	1.20 (3.27)	-2.39 (-.44)					.07 (.52)	.1948	57
	T b	-1.31 (-.14)	.11 (.89)			-.02 (-.08)	-3.22 (-.79)	-.13 (-.52)	.19 (3.76)	.43 (.77)					.30 (3.15)	.2676	122
	D b	-5.93 (-.51)	1.64 (1.00)			-.22 (-1.24)	-50 (-1.10)	-.22 (-.84)	.19 (3.79)	.62 (1.06)					.30 (3.16)	.2689	122
	C b	1.59 (.18)		-.33 (-.71)		-.25 (-1.39)	-2.10 (-.49)	-.15 (-.58)	.20 (3.81)	.55 (.94)					.31 (3.16)	.2657	122
	U b	-1.53 (-.17)			.13 (1.03)	.01 (.05)	-3.08 (-.76)	-.13 (-.52)	.19 (3.82)	.46 (.81)					.31 (3.19)	.2692	122

*Classifications are as developed by Weisenberger; see L. Weissman, *op.cit.*

⁺T,D,C,U indicate the use of total gain, dividend yield, capital gains distributions and unrealized gain, respectively as measures of fund performance.

Table A-3

MULTIPLE REGRESSION MODEL RESULTS
DEPENDENT VARIABLE, $NNI\%_t$
1963-1965
STRATIFIED BY SALES CHARGES

MODEL ⁺	Constant		Performance		Market		Expenses		Size		Fund Objectives				R ²	N
	TG _{t-1}	DY _{t-1}	CGY _{t-1}	UG _{t-1}	SP _t	ER _{t-1}	SC _t	PTO _{t-1}	TA _{t-1}	MG	G	GI	I	NNI% _{t-1}		
No Sales Charges																
T	b	-44.87	.38		.03	11.47		.23	2.86	8.86	-4.59	1.51	10.98	.66	.5318	70
t		(-1.39)	(1.89)		(.04)	(1.02)		(2.01)	(1.17)	(1.48)	(-.75)	(.24)	(1.02)	(5.77)		
D	b	-49.37	2.64		-.89	15.78		.29	3.60	13.09	-2.87	2.96	8.02	.64	.5062	70
t		(-1.15)	(.53)		(-1.71)	(1.05)		(2.54)	(1.41)	(1.53)	(-.39)	(.42)	(.55)	(5.48)		
C	b	-35.52		-.46	-.96	10.88		.30	3.48	9.19	-5.18	.75	12.38	.66	.5054	70
t		(-1.09)		(-.43)	(-1.91)	(.94)		(2.51)	(1.37)	(1.44)	(-.81)	(.11)	(1.11)	(5.41)		
U	b	-43.01			.36	10.85		.24	2.98	7.91	-5.15	.70	11.19	.67	.5314	70
t		(-1.34)			(1.86)	(.96)		(2.17)	(1.22)	(1.30)	(-.83)	(.11)	(1.04)	(5.84)		
High Sales Charges*																
T	b	163.62	.47		.71	-36.52		.47	-5.83	5.61	14.39	7.92	1.83	.58	.3111	379
t		(2.74)	(1.95)		(.86)	(-2.43)		(3.71)	(-3.08)	(.60)	(2.03)	(1.13)	(.23)	(10.76)		
D	b	140.38	8.89		-.25	-34.23		.54	-5.79	19.53	26.76	11.30	-12.60	.59	.3142	379
t		(2.28)	(2.34)		(-.41)	(-2.28)		(4.19)	(-3.07)	(1.72)	(2.96)	(1.58)	(-1.12)	(10.87)		
C	b	179.42		-1.17	-.45	-30.99		.50	-5.34	1.92	12.69	8.28	1.12	.57	.3063	379
t		(3.04)		(-1.10)	(-.74)	(-2.01)		(3.90)	(-2.79)	(.20)	(1.78)	(1.17)	(.14)	(10.55)		
U	b	164.80			.46	-32.04		.47	-5.71	3.83	13.34	7.90	1.93	.58	.3114	379
t		(2.77)			(1.99)	(-2.33)		(3.74)	(-3.02)	(.41)	(1.89)	(1.12)	(.24)	(10.73)		

* Contains funds whose maximum sales charge is 7% or greater.

⁺T, D, C, and U indicate the use of total gain, dividend yield, capital gains distributions, and unrealized gain, respectively, as measures of performance.

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