

## 2. Self-Administered Endowments

*a. The investment department*

Sixteen of the 17 endowments having self-administered accounts responded to portions of Form I-42. As was the case with corporate pension-benefit plan investment departments, the ranking of approaches to securities evaluation was "Fundamental Approach" first, "Economic Outlook" second, and "Technical" third.<sup>103</sup> Table VIII-144 summarizes these results.

TABLE VIII-144  
IMPORTANCE OF APPROACHES TO SECURITIES EVALUATION FOR 16 ENDOWMENTS  
(PERCENT OF REPORTING ENDOWMENTS)

Approach	Importance codes <sup>1</sup>				
	1	2	3	4	5
Fundamental.....	81.25	18.75	0	0	0
Technical.....	6.25	12.50	25.00	43.75	12.50
Economic outlook.....	18.75	43.75	37.50	0	0
Other.....		6.25			25.00

<sup>1</sup> See Sec. C.2.d, above, for meaning of importance codes.

Following the pattern of corporate plan investment departments, but not that of state and local government investment departments, the financial statements of issuers was the most important source of external information for endowments internal investment departments. Information and recommendations purchased via commission dollars from broker-dealers was a close second. Table VIII-145 summarizes these results.

TABLE VIII-145  
IMPORTANCE OF SOURCES OF RESEARCH AND INFORMATION TO 16 ENDOWMENTS  
(PERCENT OF REPORTING ENDOWMENTS)

Source	Importance code <sup>1</sup>				
	1	2	3	4	5
Information and recommendations from broker-dealers purchased via commission dollars.....	25.00	56.25	18.75	0	0
Information and recommendations purchased from investment advisers on a continuing or contractual basis.....	6.25	31.25	0	18.75	43.75
Information and recommendations received from other research organization not included above (with or without compensation).....	6.25	12.50	50.00	18.75	18.75
Direct contact with security issuers.....	0	31.25	25.00	25.00	18.75
Financial statements of issuers.....	43.75	43.75	12.50	0	0
Others.....		12.50			18.75

<sup>1</sup> See Sec. C.2.d above, for importance codes.

Four of the investment departments used an approved list for purchases, three used such a list for sales and three used one for holds. Five departments had no analysts, five had one or two analysts and six had more than two. Nine departments together had 24 analysts with advanced degrees in business, law or related fields. Eight depart-

<sup>103</sup> These approaches are defined in sec. C.2, above.

ments had analysts responsible for covering issuers in one or more specific industries. Nine departments stated that their analysts spent 0 to 20 percent of their time in personal contact with issuers, and two departments reported that their analysts spend 20 to 40 percent of their time in such contact. Table VIII-146 tabulates the responses to our question dealing with the composition of the investment department personnel and presents growth rates for various classes of personnel.

TABLE VIII-146  
PERSONNEL COMPENSATION OF 16 ENDOWMENTS' INVESTMENT DEPARTMENTS 1964-1969

Employment category	Full-time equivalents		Growth rate (percent)
	Dec. 31, 1964	Dec. 31, 1969	
Account supervisors and portfolio managers.....	16.4	24.5	+49.39
Economic research staff.....	0	0	-----
Investment research staff.....	14.6	16.5	+13.01
Professional traders.....	0	1.2	(1)
Clerical, secretarial.....	31.7	38.6	+21.77
Executives (not included above).....	4.2	4.2	-----
Other.....	2.0	4.0	+100.00
Total.....	67.9	88.8	+30.78

1 Indeterminant.

### *b. Reasons for being internally managed*

Almost all respondents in this category cited their belief that they could achieve at least comparable results to an external professional group with in-house management. Many felt costs would be less and flexibility would be greater.

Other stated reasons include the following:

"The Concentration on University problems and the control it has over the operations are two important characteristics that would be diluted if the funds were to be farmed out."

"All members are professional investors and staffs of several large funds are available *gratis*."

"There can be greater concentration on a portfolio since the manager has only one account."

"Internal administration means active and concerned interest in the development and growth of the institution's assets."

### 3. Investment Practices and Measures

In this section, the Study presents the results of studies of the investment practices of educational endowments. These studies essentially parallel the studies of corporate pension-benefit plans made for section C. 3 of this chapter, and for other accounts in sections D and E. Data concerning asset holdings, transactions and fees were collected from the accounts which received the second stage series of questionnaires. These data have permitted the preparation of tables setting forth in detail the composition of accounts according to the type of assets held and showing common stock holdings according to the exchange listing of issues held for two points in time, yearend 1964 and yearend 1969. In addition, tables showing common stock turnover and activity rates for each of the five years 1965 through 1969 and fee and expense rates for each of the four years 1966 through 1969 were pre-

pared. Finally, analysis of growth in total assets and common stock holdings is presented.

*a. Asset composition measures*

(1) *By asset category.*—As explained in more detail in section C. 3, above, Form I-21 collected data on asset holdings of accounts by type of asset. Tables VIII-148 through -171, at the end of this section, present the results of this questionnaire for accounts of educational endowments.

Table VIII-148 and Table VIII-149 present respectively dollar amounts and percentages of total assets in major asset categories as reported for yearend 1969 for the 57 accounts in the Study's second stage sample which reported for that date. Each of the six columns of major categories is broken down into more detailed categories and the dollar amounts in these refined categories are reported on Tables VIII-150 through -155. Percentages have not been presented for the detailed categories. Columns and rows on the dollar-amount tables may not add exactly due to rounding, and on the detail tables some sub-categories of assets may not add, in given rows, to the amount shown as a total for the category because some respondents did not break down the category as requested when reporting on Form I-21.

Because the 57 accounts which supplied 1969 yearend data were not all in existence at yearend 1964, in order to assess change over the five year period, the Study tabulated in 1964 and 1969 yearend reports of the 47 accounts which reported for 1964. The series of Tables, VIII-156 through -171 present these results. The nature of the tables is the same as Tables VIII-148 through -155; however, each table showing 1964 data is followed immediately by its 1969 counterpart. Thus, the even numbered tables show 1964 data and the odd numbered tables show 1969 data. The juxtaposition of these reports permits ready comparison of the values reported for purposes of estimating change in holding patterns and growth over the period studied. The first two of these tables, VIII-156 and -157, are summary tables showing dollar amounts. The next two tables, VIII-158 and -159, show percentages of total assets in the major categories based on the dollar amounts given in the first two tables. The next six pairs of tables, VIII-160 through -171, present dollar amounts and give, in turn, a more detailed look at the major categories presented on the summary tables.

(2) *Growth in common stock and total assets.*—The data presented in Tables VIII-156 through -171 have been analysed to calculate growth of total assets and growth of common stock holdings within the group of 47 accounts over the five year period, yearend 1964 through yearend 1969. In addition, the change in the ratio of common stock to total assets over the period was measured. Table VIII-147 summarizes these calculations. It should be cautioned that this analysis does not take into account the components of growth, contributions and investment return, and that the figures presented are not intended to and do not necessarily reflect the investment results of any of the types of managers or categories of accounts. An examination of the Table reveals that all categories of accounts experienced growth in both total assets and common stock over the five year period. Although self-managed accounts had the highest asset and stock growth rates, they had the lowest of the generally positive increases in the ratio of common stocks to total assets.

Table VIII-147  
 ENDOWMENTS <sup>1/</sup>  
 GROWTH IN COMMON STOCK AND TOTAL ASSETS  
 1964 to 1969

Account Type	Number of Accounts	1964 Common \$	1969 Common \$	Percentage Change	1964 Total \$	1969 Total \$	Percentage Change	Percentage Change in Ratio of Common to Total <sup>2/</sup>
Bank-Managed	17	531.1	636.3	+19.81%	867.6	972.5	+12.09%	+6.89%
Investment Adviser-Managed	15	1344.5	1717.2	+27.72%	2278.7	2683.5	+17.76%	+16.93%
Self-Managed	15	1261.8	1651.9	+30.92%	2206.5	2737.5	+24.07%	+5.51%
Total	47	3137.5	4005.4	+27.66%	5352.8	6393.5	+19.44%	+6.89%

<sup>1/</sup> Dollars in millions.

<sup>2/</sup> See Table VIII-17, supra, for formula.

(3) *Common stock held by exchange listing of issuer.*—On Form I-24, the Study collected data about the common stock holdings of particular accounts.<sup>106</sup> Specifically, respondents were asked to give the market value of stock held in each of the following categories: NYSE listed securities; American Stock Exchange listed securities; stock of banks or insurance companies not listed on either the Amex or the NYSE; other common stock; and total.

Tables VIII-172, -173 and -174 present the values reported by educational endowment accounts. These tables follow the general pattern of the asset category tables. Table VIII-172 gives 1969 information for the 56 accounts which reported as of yearend 1969; while Tables VIII-173 and -174 present respectively 1964 and 1969 yearend values for the 49 accounts which reported first as of yearend 1964. Table VIII-48, presented in section C.3 of this chapter provides the proper background against which to view the figures reported on these tables. Again, this comparison reveals that these accounts hold a high percentage of their stock assets in NYSE-listed equities, although not as high as state and local government systems.

*b. Common stock turnover and activity rates*

Form I-26 provided annual data for 1965 through 1969 on gross purchases, sales and holdings of common equities. These data have permitted the Study to calculate common stock turnover (TOV) and activity (ACT) rates for the reporting accounts. These calculations have been made in the manner described in section C.3.b of this chapter in connection with corporate pension-benefit plan accounts. Table VIII-175 shows the weighted average TOV and ACT rates for each of the five years for reporting accounts. The most notable leap in turnover rates is evident between 1967 and 1968 attributable largely to the investment adviser managed accounts.

Because of the limited number of usable observations, no attempt was made to relate statistically turnover rate with various account characteristics as was done for corporate plan accounts.

*c. Fee and expense rates*

Using the same methods as were used for corporate pension-benefit plan accounts, the Study used data collected on Form I-25 and other forms to calculate fee and expense rates for educational endowment accounts. The results are presented in Table VIII-176. Again, because of the limited number of usable observations, no attempt was made to relate fee rates with other account characteristics through statistical analyses.

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<sup>106</sup> See Supp. Vol. II for a reproduction of Form I-24.

TABLE VIII-148  
 ENDOWMENTS, ASSET HOLDINGS - 1969 - SUMMARY  
 (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	CASH	GOVTS & SHORT TERM	NONGOVT LONG- TERM	COMMON & WARRANTS	MORTGAGE REAL ESTATE	OTHER ASSETS	TOTAL ASSETS
BANK-MANAGED	19	4.9	53.1	159.0	627.5	104.4	40.0	1048.9
I/A MANAGED	23	28.9	292.6	721.7	2315.0	172.7	133.9	3664.8
SELF-MANAGED	15	21.0	306.0	502.3	1651.9	151.0	105.4	2737.5
TOTAL	57	54.8	651.6	1383.0	4654.4	428.1	279.3	7451.2

TABLE VIII-149

Endowments  
Asset Holdings--1969

(Percent of Total Assets)

ACCOUNT TYPE	N	CASH	GOVTS & SHORT- TERM	NONGOV'T LONG- TERM	COMMON & WARRANTS	MORTGAGE REAL ESTATE	OTHER ASSETS	TOTAL ASSETS
Bank-Managed	19	0.47	5.06	15.16	65.54	9.95	3.81	100.00
I/A Managed	23	0.79	7.98	19.69	63.17	4.71	3.65	100.00
Self-Managed	15	0.77	11.18	18.35	60.34	5.52	3.85	100.00
TOTAL	57	0.74	8.74	18.56	62.47	5.75	3.75	100.00

TABLE VIII-150  
 ENDOWMENTS, ASSET HOLDINGS - 1969 -  
 CASH AND NON CASH ITEMS (IN MILLIONS OF  
 DOLLARS)

ACCOUNT TYPE	N	CURRENCY DEMAND DP IN-BKS	CURRENCY DEMAND DP ELSE	TOTAL CURRENCY DEM DEPS	C.O.'S	OTH.TIME & SAV DP IN BANKS	OTH.TIME & SAV DEPOSITS	TOTAL CASH & NEARCASH
BANK-MANAGED	19	1.1	1.5	2.6	0.0	0.0	2.4	5.0
I/A MANAGED	23	15.3	6.1	21.4	1.4	3.5	0.0	28.9
SELF-MANAGED	15	0.0	18.9	20.7	0.1	0.3	0.0	21.0
TOTAL	57	16.4	26.5	44.7	1.5	3.8	2.4	54.9

TABLE VIII-151  
 ENDOWMENTS, ASSET HOLDINGS - 1969 -  
 GOVERNMENT SECURITIES AND NONGOVERNMENT  
 SHORT-TERM SECURITIES (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	US GOVT SHORT- TERM	US GOVT LONG- TERM	US GOVT TOTAL	US STATE & LOCAL GOVT	FOREIGN GOVT	NONGOVT SHORT- TERM	NONGOVT SHRT TRM FOREIGN	NONGOVT SHRT TRM TOTAL
BANK-MANAGED	19	1.2	5.8	7.2	2.1	12.0	31.7	0.0	31.7
I/A MANAGED	23	123.4	92.1	215.5	21.0	13.3	42.4	0.4	42.8
SELF-MANAGED	15	40.7	198.5	240.4	2.7	15.9	44.4	0.2	46.9
<b>TOTAL</b>	<b>57</b>	<b>165.3</b>	<b>296.3</b>	<b>463.1</b>	<b>25.8</b>	<b>41.2</b>	<b>118.6</b>	<b>0.6</b>	<b>121.5</b>

TABLE VIII-152  
 ENDOWMENTS, ASSET HOLDINGS - 1969 - NON-  
 GOVERNMENT LONG-TERM DEBT, (IN MILLIONS  
 OF DOLLARS)

ACCOUNT TYPE	N	RESTRICT US ISSUE W/EQUITY	OTHER US ISSUE W/EQUITY	TOTAL US ISSUE W/EQUITY	RESTRICT US ISSUE WO/EQUIT	OTHER US ISSUE WO/EQUIT	TOTAL US ISSUE WO/EQUIT	FOREIGN ISSUERS	TOTAL NONGOVT LT DEBT
BANK-MANAGED	19	0.0	20.0	22.7	23.0	103.8	132.8	3.4	159.0
I/A MANAGED	23	36.6	94.1	138.0	10.2	497.6	552.0	31.7	721.7
SELF-MANAGED	15	14.2	72.6	88.9	68.6	188.4	393.9	19.4	502.3
TOTAL	57	50.8	186.8	249.6	101.8	789.8	1078.8	54.5	1383.0

TABLE VIII-153  
 ENDOWMENTS, ASSET HOLDINGS - 1969 - COMMON  
 STOCK AND WARRANTS (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	ADR'S & FOREIGN ISSUERS	RESTRICT ED U.S. ISSUER	INVESTMT COMPANY SHARES	AFFILIAT ED COMP- ANY SHS.	OTHER U.S. ISSUERS	TOTAL COMMON STOCK	WARRANTS RIGHTS & OPTIONS
BANK-MANAGED	19	12.5	34.4	0.0	0.0	640.3	687.2	0.2
I/A MANAGED	23	38.4	75.2	6.1	2.6	2188.2	2310.6	4.4
SELF-MANAGED	15	11.2	45.5	3.6	0.0	1584.9	1645.2	6.7
TOTAL	57	62.1	155.1	9.8	2.6	2413.4	4643.1	11.3

TABLE VIII-154  
 ENDOWMENTS, ASSET HOLDINGS - 1969 -  
 MORTGAGES AND REAL ESTATE (IN MILLIONS OF  
 DOLLARS)

ACCOUNT TYPE	N	MORTGAGE 1- TO 4- FAMILY	OTHER MORTGAGE WO/EQUIT	MORTGAGE WO/EQUIT TOTAL	MORTGAGE WITH EQUITY	TOTAL MORTGAGE	REAL ESTATE OWNED
BANK-MANAGED	19	23.9	59.2	83.1	0.0	83.1	21.3
I/A MANAGED	23	22.3	32.2	54.8	1.4	59.3	113.4
SELF-MANAGED	15	48.7	23.1	71.8	0.0	71.8	79.2
TOTAL	57	94.9	114.6	209.7	1.4	214.3	213.8

TABLE VIII-155  
 ENDOWMENTS, ASSET HOLDINGS - 1969 - PREFERRED  
 STOCK AND OTHER ASSETS (IN MILLIONS OF  
 DOLLARS)

ACCOUNT TYPE	N	CONVERT. PREFERRED US ISSUE	NONCONV'T PREFERRED US ISSUE	TOTAL PREFERRED	POLICY LOANS	DUPLICATE FROM AFFILIATE COMPANY	ACCOUNTS RECEIVABLE FROM BROKERS	ALL OTHER	OTHER ASSETS TOTAL
BANK-MANAGED	19	9.9	1.8	11.7	0.0	0.1	0.0	28.2	28.3
I/A MANAGED	23	74.3	15.5	89.9	0.0	1.0	0.4	34.2	44.0
SELF-MANAGED	15	79.1	8.4	87.6	0.0	0.0	1.4	16.4	17.8
TOTAL	57	163.3	25.7	189.2	0.0	1.0	1.8	78.8	90.1

TABLE VIII-156  
 ENDOWMENTS, ASSET HOLDINGS - 1964 - SUMMARY  
 (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	CASH	GOVTS & SHORT- TERM	NONGOVT LONG- TERM	COMMON & WARRANTS	MORTGAGE REAL ESTATE	OTHER ASSETS	TOTAL ASSETS
BANK-MANAGED	17	6.8	57.8	160.1	531.1	88.4	23.4	867.6
I/A MANAGED	15	70.7	262.1	446.4	1344.5	96.5	58.1	2278.7
SELF-MANAGED	15	70.0	424.5	321.6	1261.8	98.5	30.2	2206.5
TOTAL	47	147.5	744.3	928.5	3137.5	283.4	111.7	5352.8

TABLE VIII-157  
 ENDOWMENTS, ASSET HOLDINGS - 1969 (ACCOUNTS  
 ALSO REPORTING FOR 1964) - SUMMARY (IN  
 MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	CASH	GOVTS & SHORT- TERM	NONGOVT LONG- TERM	COMMON & WARRANTS	MORTGAGE REAL ESTATE	OTHER ASSETS	TOTAL ASSETS
BANK-MANAGED	17	4.9	52.5	158.6	636.3	83.7	36.7	972.5
I/A MANAGED	15	10.0	142.9	580.3	1717.2	124.1	108.9	2683.5
SELF-MANAGED	15	21.0	306.0	502.3	1651.9	151.0	105.4	2737.5
TOTAL	47	36.0	501.3	1241.1	4005.4	358.8	251.0	6393.5

TABLE VIII-158  
 ENDOWMENTS, ASSET HOLDINGS - 1964 -  
 PERCENTAGES (PERCENT OF TOTAL ASSETS)

ACCOUNT TYPE	N	CASH	GOVTS & SHORT- TERM	NONGOV'T LONG- TERM	COMMON & WARRANTS	MORTGAGE REAL ESTATE	OTHER ASSETS	TOTAL ASSETS
Bank-Managed	17	0.78	6.66	18.45	61.21	10.19	2.70	100.00
I/A Managed	15	3.10	11.50	19.59	59.00	4.23	2.55	100.00
Self-Managed	15	3.17	19.24	14.58	57.19	4.46	1.37	100.00
TOTAL	47	2.76	13.90	17.35	58.61	5.29	2.09	100.00

TABLE VIII-159  
 ENDOWMENTS, ASSET HOLDINGS - 1969 (ACCOUNTS  
 REPORTING ALSO FOR 1964) - PERCENTAGES  
 (PERCENT OF TOTAL ASSETS)

ACCOUNT TYPE	N	CASH	GOVTS. & SHORT- TERM	NONGOVT LONG- TERM	COMMON & WARRANTS	MORTGAGE REAL ESTATE	OTHER ASSETS	TOTAL ASSETS
BANK-MANAGED	17	0.50	5.40	16.31	65.43	8.61	3.77	100.00
I/A MANAGED	15	0.37	5.33	21.62	63.99	4.62	4.06	100.00
SELF-MANAGED	15	0.77	11.18	18.35	60.34	5.52	3.85	100.00
TOTAL	47	0.56	7.84	19.41	62.65	5.61	3.93	100.00

TABLE VIII-160  
 ENDOWMENTS, ASSET HOLDINGS - 1964 - CASH  
 AND NONCASH ITEMS (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	CURRENCY DEMAND DP M-BKS	CURRENCY DEMAND DP ELSE	TOTAL CURRENCY DEM DEPS	C.D.'S	OTH.TIME & SAV DP IN BANKS	OTH.TIME & SAV DEPOSITS	TOTAL CASH & NEARCASH
BANK-MANAGED	17	0.9	1.1	2.0	0.0	2.8	2.0	6.8
I/A MANAGED	15	0.0	7.1	7.1	39.7	20.6	2.8	70.7
SELF-MANAGED	15	0.1	4.7	6.6	21.0	22.9	19.2	70.0
TOTAL	47	1.0	13.0	15.7	60.6	46.4	24.0	147.5

TABLE VIII-161  
 ENDOWMENTS, ASSET HOLDINGS - 1969 (ACCOUNTS  
 REPORTING ALSO FOR 1964) - CASH AND NEAR CASH  
 ITEMS (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	CURRENCY DEMAND DP M-BKS	CURRENCY DEMAND DP ELSE	TOTAL CURRENCY DEM DEFS	C.C.'S	OTH.TIME & SAV DP IN BANKS	OTH.TIME & SAV DEPOSITS	TOTAL CASH & NEARCASH
BANK-MANAGED	17	1.0	1.5	2.6	0.0	0.0	2.4	4.9
I/A MANAGED	15	0.0	5.3	5.3	0.3	3.0	0.0	10.0
SELF-MANAGED	15	0.0	18.9	20.7	0.1	0.3	0.0	21.0
TOTAL	47	1.0	25.7	28.5	0.4	3.2	2.4	36.0

TABLE VIII-162  
 ENDOWMENTS, ASSET HOLDINGS - 1964 -  
 GOVERNMENT SECURITIES AND NONGOVERNMENT SHORT-  
 TERM SECURITIES (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	US GOVT SHORT- TERM	US GOVT LONG- TERM	US GOVT TOTAL	US STATE & LOCAL GOVT	FOREIGN GOVT	NONGOVT SHORT- TERM	NONGOVT SHRT TRM FOREIGN	NONGOVT SHRT TRM TOTAL
BANK-MANAGED	17	5.6	24.1	30.7	7.9	12.8	6.3	0.0	6.3
I/A MANAGED	15	28.6	133.6	162.2	18.1	22.9	40.9	18.0	58.9
SELF-MANAGED	15	24.4	342.2	366.7	5.1	28.3	22.4	2.0	24.4
TOTAL	47	58.6	499.9	559.5	31.1	64.0	69.7	20.0	89.7

TABLE VIII-163  
 ENDOWMENTS, ASSET HOLDINGS - 1969 (ACCOUNTS  
 REPORTING ALSO FOR 1964) - GOVERNMENT  
 SECURITIES AND NONGOVERNMENT SHORT-TERM  
 SECURITIES (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	US GOVT SHORT- TERM	US GOVT LONG- TERM	US GOVT TOTAL	US STATE & LOCAL GOVT	FOREIGN GOVT	NONGOVT SHORT- TERM	NONGOVT SHORT TRM FOREIGN	NONGOVT SHORT TRM TOTAL
BANK-MANAGED	17	1.2	5.7	7.2	2.1	12.0	31.3	0.0	31.3
I/A MANAGED	15	21.1	68.1	89.1	14.4	10.1	29.2	0.0	29.2
SELF-MANAGED	15	40.7	158.5	240.4	2.7	15.9	44.4	0.2	46.5
TOTAL	47	63.0	272.3	336.7	19.2	38.0	105.0	0.2	107.5

TABLE VIII-164  
 ENDOWMENTS, ASSET HOLDINGS - 1964 - NON-  
 GOVERNMENT LONG-TERM DEBT (IN MILLIONS OF  
 DOLLARS)

ACCOUNT TYPE	N	RESTRICT US ISSUE W/EQUITY	OTHER US ISSUE W/EQUITY	TOTAL US ISSUE W/EQUITY	RESTRICT US ISSUE WO/EQUIT	OTHER US ISSUE WO/EQUIT	TOTAL US ISSUE WO/EQUIT	FOREIGN ISSUERS	TOTAL NONGOV'T LT DEBT
BANK-MANAGED	17	0.1	5.2	5.4	24.2	110.6	151.1	3.6	160.1
T/A MANAGED	15	15.4	9.5	27.2	21.1	304.7	386.1	33.5	446.8
SELF-MANAGED	15	7.5	24.5	32.0	30.4	135.4	264.8	24.8	321.6
TOTAL	47	23.0	39.2	64.5	75.7	550.7	802.1	61.9	928.5

TABLE VIII-165  
 ENDOWMENTS, ASSET HOLDINGS - 1969 (ACCOUNTS  
 REPORTING ALSO FOR 1964) - NONGOVERNMENT LONG-  
 TERM DEBT (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	RESTRICT US ISSUE W/EQUITY	OTHER US ISSUE W/EQUITY	TOTAL US ISSUE W/EQUITY	RESTRICT US ISSUE WO/EQUIT	OTHER US ISSUE WO/EQUIT	TOTAL US ISSUE WO/EQUIT	FOREIGN ISSUERS	TOTAL NONGOV'T LT DEBT
BANK-MANAGED	17	0.0	20.0	22.7	23.0	103.4	132.4	3.4	158.6
I/A MANAGED	15	25.6	53.0	85.9	7.6	412.6	464.6	29.9	580.3
SELF-MANAGED	15	14.2	72.6	88.9	68.6	188.4	393.9	15.4	502.3
TOTAL	47	39.8	145.6	197.5	99.3	704.4	990.9	52.7	1241.1

TABLE VIII-166  
 ENDOWMENTS, ASSET HOLDINGS - 1964 - COMMON  
 STOCK AND WARRANTS (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	ADR'S & FOREIGN ISSUERS	RESTRICT ED U.S. ISSUER	INVESTMT COMPANY SHARES	AFFILIAT ED COMP- ANY SHS.	OTHER U.S. ISSUERS	TOTAL COMMON STOCK	WARRANTS RIGHTS & OPTIONS
BANK-MANAGED	17	10.3	0.1	0.0	0.0	520.3	531.1	0.0
I/A MANAGED	15	31.0	13.2	1.4	0.0	1235.6	1338.5	6.0
SELF-MANAGED	15	11.6	3.8	3.3	0.0	1240.4	1259.1	2.6
TOTAL	47	53.0	17.1	4.7	0.0	2996.4	3128.8	8.6

TABLE VIII-167  
 ENDOWMENTS, ASSET HOLDINGS - 1969 (ACCOUNTS  
 REPORTING ALSO FOR 1964) - COMMON STOCK AND  
 WARRANTS (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	ADR'S & FOREIGN ISSUERS	RESTRICT ED U.S. ISSUER	INVESTMT COMPANY SHARES	AFFILIAT EC COMP- ANY S-FS.	OTHER U.S. ISSUERS	TOTAL COMMON STOCK	WARRANTS RIGHTS & OPTIONS
BANK-MANAGED	17	10.4	32.4	0.0	0.0	593.3	636.1	0.2
I/A MANAGED	15	31.4	66.8	2.7	2.1	1610.7	1713.7	3.6
SELF-MANAGED	15	11.2	45.5	3.6	0.0	1584.9	1645.2	6.7
TOTAL	47	53.0	144.7	6.3	2.1	3788.9	3995.0	10.4

TABLE VIII-168  
 ENDOWMENTS, ASSET HOLDINGS - 1964 - MORTGAGES  
 AND REAL ESTATE (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	MORTGAGE 1- TO 4- FAMILY	OTHER MORTGAGE WO/EQUIT	MORTGAGE WO/EQUIT TOTAL	MORTGAGE WITH EQUITY	TOTAL MORTGAGE	REAL ESTATE OWNED
BANK-MANAGED	17	14.0	65.6	79.6	0.0	79.6	8.8
T/A MANAGED	15	14.6	30.2	45.0	0.0	45.0	51.5
SELF-MANAGED	15	29.5	5.3	34.9	0.0	34.9	63.6
TOTAL	47	58.2	101.2	159.5	0.0	159.5	123.9

TABLE VIII-169  
 ASSET HOLDINGS - 1969 (ACCOUNTS REPORTING ALSO  
 FOR 1964) - MORTGAGES AND REAL ESTATE (IN  
 MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	MORTGAGE 1- TO 4- FAMILY	OTHER MORTGAGE W/O/EQUIT	MORTGAGE W/O/EQUIT TOTAL	MORTGAGE WITH EQUITY	TOTAL MORTGAGE	REAL ESTATE OWNED
BANK-MANAGED	17	23.9	50.5	74.4	0.0	74.4	9.3
I/A MANAGED	15	21.4	19.6	41.3	1.4	42.7	81.4
SELF-MANAGED	15	43.7	23.1	71.8	0.0	71.8	79.2
TOTAL	47	94.0	93.3	187.5	1.4	189.0	169.9

TABLE VIII-170  
 ENDOWMENTS, ASSET HOLDINGS - 1964 - PREFERRED  
 STOCK AND OTHER ASSETS (IN MILLIONS OF  
 DOLLARS)

ACCOUNT TYPE	N	CONVERT. PREFERRED US ISSUE	NONCONV'T PREFERRED US ISSUE	TOTAL PREFERRED	POLICY LOANS	DUE FROM AFFILIAT COMPANY	ACCOUNTS RCRLE FR BROKERS	ALL OTHER	OTHER ASSETS TOTAL
BANK-MANAGED	17	4.6	7.2	11.7	0.0	0.0	0.0	11.6	11.6
T/A MANAGED	15	5.4	15.9	22.5	0.0	1.0	0.0	26.4	35.6
SELF-MANAGED	15	10.3	9.2	19.6	0.0	0.0	0.0	10.6	10.6
TOTAL	47	20.3	32.2	53.9	0.0	1.0	0.0	48.6	57.8

TABLE VIII-171  
 ENDOWMENTS, ASSET HOLDINGS - 1969 (ACCOUNTS  
 REPORTING ALSO FOR 1964) - PREFERRED STOCK  
 AND OTHER ASSETS (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	CONVERT. PREFERRED US. ISSUE	NONCONV'T PREFERRED US. ISSUE	TOTAL PREFERRED	POLICY LCANS	DUE FROM AFFILIAT COMPANY	ACCOUNTS RECEIV FR BROKERS	ALL OTHER	OTHER ASSETS TOTAL
BANK-MANAGED	17	8.9	1.8	10.7	0.0	0.0	0.0	26.0	26.0
I/A MANAGED	15	59.7	10.3	70.0	0.0	1.0	0.4	29.1	38.9
SELF-MANAGED	15	79.1	8.4	87.6	0.0	0.0	1.4	16.4	17.8
TOTAL	47	147.7	20.5	168.2	0.0	1.0	1.8	71.5	82.7

TABLE VIII-172  
 ENDOWMENTS -- 1969  
 HOLDINGS OF COMMON STOCK BY EXCHANGE LISTING

ACCOUNT TYPE	NO.	NYSE LISTED		AMEX LISTED		BANKS & INS. COS.		OTHER		TOTAL	
		\$	%	\$	%	\$	%	\$	%	\$	%
BANK-MANAGED	19	618.5	90.89	12.9	1.90	21.5	3.16	27.5	4.03	680.4	100.00
INVESTMENT ADVISER MANAGED	22	1984.8	87.31	44.4	1.95	120.2	5.29	123.8	5.45	2273.3	100.00
SELF-MANAGED	15	1432.2	89.68	19.9	1.24	48.8	3.05	96.1	6.01	1597.1	100.00
TOTAL	56	4035.6	88.68	77.3	1.70	190.6	4.19	247.4	5.44	4550.8	100.00

Note: All dollar values in millions of dollars.

TABLE VIII-173  
 ENDOWMENTS -- 1964  
 HOLDINGS OF COMMON STOCK BY EXCHANGE LISTING

ACCOUNT TYPE	NO.	NYSE LISTED		AMEX LISTED		BANKS & INS. COS.		OTHER		TOTAL	
		\$	%	\$	%	\$	%	\$	%	\$	%
BANK-MANAGED	18	463.0	85.61	1.7	0.31	35.5	6.56	40.6	7.50	540.8	100.00
INVESTMENT ADVISER MANAGED	16	1172.8	82.81	24.0	1.69	151.6	10.70	67.9	4.79	1416.2	100.00
SELF-MANAGED	15	1114.3	88.37	7.2	0.57	91.2	7.23	48.1	3.81	1260.8	100.00
TOTAL	49	2750.1	85.46	32.9	1.02	278.3	8.64	156.6	4.86	3217.9	100.00

Note: All dollar values in millions of dollars.

TABLE VIII-174  
 ENDOWMENTS -- 1969 (ACCOUNTS REPORTING ALSO IN 1964)  
 HOLDINGS OF COMMON STOCK BY EXCHANGE LISTING

ACCOUNT TYPE	NO.	NYSE LISTED		AMEX LISTED		BANKS & INS. COS.		OTHER		TOTAL	
		\$	%	\$	%	\$	%	\$	%	\$	%
Bank-Managed	18	590.5	90.67	12.0	1.84	21.5	3.30	27.2	4.17	651.3	100.00
Investment Adviser Managed	16	1551.6	86.82	32.1	1.79	99.7	5.57	103.7	5.80	1787.0	100.00
Self-Managed	15	1432.2	89.68	19.9	1.24	48.8	3.05	96.1	6.01	1597.1	100.00
Total	49	3574.3	88.57	64.0	1.58	170.0	4.21	227.0	5.62	4035.4	100.00

Note: All dollar values in millions of dollars.

TABLE VIII-175  
 ENDOWMENTS, TURNOVER AND ACTIVITY RATES  
 1965 - 1969

ACCOUNT TYPE	1965			1966			1967			1968			1969		
	N	TOV	ACT	N	TOV	ACT	N	TOV	ACT	N	TOV	ACT	N	TOV	ACT
BANK MANAGED	18	11.02	12.05	18	8.71	11.11	18	12.38	16.01	19	11.81	16.16	19	17.91	23.17
I/A MANAGED	13	7.09	9.52	14	6.02	8.10	14	8.19	9.97	16	29.08	31.54	18	25.53	29.22
SELF MANAGED	14	5.87	8.21	14	4.88	6.92	14	5.41	7.16	14	9.13	11.14	14	13.68	16.36
TOTAL	45	7.13	9.22	46	6.04	8.16	46	7.78	9.86	49	19.07	21.66	51	20.19	23.77

TABLE VIII-176  
 ENDOWMENTS  
 FEE AND EXPENSE RATES  
 1966 - 1969

ACCOUNT TYPE	1966			1967			1968			1969			1969*		
	N	FEE	EXP	N	FEE	EXP									
BANK MANAGED	13	.06%	.02%	15	.06%	.02%	15	.06%	.02%	16	.06%	.02%	16	.05%	.02%
I/A MANAGED	11	.03%	.01%	13	.03%	.01%	13	.03%	.01%	15	.04%	.02%	15	.04%	.01%
SELF MANAGED	11	.06%	.00%	11	.05%	.00%	11	.05%	.00%	11	.07%	.00%	11	.06%	.00%
TOTAL	35	.05%	.01%	39	.04%	.01%	39	.04%	.01%	42	.05%	.01%	42	.05%	.01%

\*Fee and expense rates based on 1969, Form I-21 Total assets.

## G. FOUNDATIONS

## 1. Overview

*a. Background*

Private foundations are the last type of institutional portfolio to be examined by the Study. Again, a sampling strategy was adopted in an effort to cover the largest number of foundation dollars with the least number of respondents. It has been estimated that at the end of 1968 some 22,000 foundations were in existence having \$20.5 billion in assets.<sup>107</sup> The Study's sample of 29 foundations had approximately \$11.2 billion in total assets or about 55 percent of estimated total foundation assets.<sup>108</sup>

Unlike the case with pension plans and endowments, a screening questionnaire was not employed in an effort to identify a subuniverse of separately managed accounts because the staff had no expectations that any substantial number of foundations in the sample would have more than one account.<sup>109</sup> The questionnaire package used included most of the data-intensive schedules used on other account types and contained questions seeking to identify the managers of accounts as well as details of the investment department of self-managed accounts. Eleven accounts were identified as bank-managed, three as investment adviser-managed and 16 as self-managed.

Although this is no longer the case, foundation accounts, at least throughout the period of the Study, were not subject to the federal income tax. All of the foundations studied reported that they were exempt under section 501(c)(3) of the Code. As such, most of these foundations had to abide the prohibited transaction provisions of section 503(c) of the Code.<sup>110</sup> Section 503(c) prohibits transactions in which a foundation—

- (1) Lends any part of its income or corpus, without the receipt of adequate security and a reasonable rate of interest, to;
- (2) Pays any compensation, in excess of a reasonable allowance for salaries or other compensation for personal services actually rendered, to;
- (3) Makes any part of its services available on a preferential basis to;
- (4) Makes any substantial purchase of securities or any other property, for more than adequate consideration in money or money's worth, from;
- (5) Sells any substantial part of its securities or other property, for less than an adequate consideration in money or money's worth, to; or
- (6) Engages in any other transaction which results in a substantial diversion of its income or corpus to; the creator of such organization (if a trust); a person who has made a substantial contribution to such organization; a member of the family (as defined in section 267(c)(4)) of an individual who is the creator of such trust or who has made a substantial contribution to such organization; or a corporation controlled by such creator or person

<sup>107</sup> Foundation Center.

<sup>108</sup> See app. A for description of sample procedures.

<sup>109</sup> Questionnaire I-48 did make provisions for respondents having more than one account, however.

<sup>110</sup> These provisions also applied to qualified pension trusts. See above. Section 503(b), however, exempts certain 501(c)(3) organizations from § 503, including "an organization the principal purposes or functions of which are the providing of medical or hospital care or medical education or medical research or agricultural research." § 503(b)(5).

through the ownership, directly or indirectly, of 50 percent or more of the total combined voting power of all value of shares of all classes of stock, of the corporation.

The Tax Reform Act of 1969 characterizes organizations considered to have the greatest tendency to abuse their exemption privileges as private foundations and imposes requirements upon them that are separate from and additional to the usual statutory conditions for exemption. The Act subjects such organizations to a four percent excise tax upon foundation income that takes into account gains and losses upon the sale of assets used to produce interest, dividends, rents and royalties.<sup>111</sup> The Act imposes a tax upon self-dealing that severely penalizes a variety of activities, including *any* use of foundation assets for the benefit of insiders.<sup>112</sup> The Act also penalizes excess business holdings, generally limiting private foundations to a 20 percent interest in an incorporated business and to a 35 percent interest where some third party (other than an insider) has effective control of the business enterprise.<sup>113</sup> Moreover, the Act provides stringent penalties for making investments in a manner that jeopardizes carrying out any of the exempt purposes of the foundation<sup>114</sup> or that fails to distribute income in accordance with a statutory formula that bases mandatory distributions upon the value of assets in the hands of such foundations.<sup>115</sup>

Beyond these provisions of the federal tax laws, foundations are subject principally to the laws of the various states concerning non-profit organizations.

*b. Major characteristics of large foundations*

More than three quarters of the foundations answering the Study's questionnaires reported that they measured the rate of return of their funds. About one quarter used an outside agency and not quite two-thirds did the calculations internally. Table VIII-17 summarizes the responses received classified by manager type.

In general, foundations in the Study's sample gave sole investment authority to the account manager about 20 percent of the time. Table VIII-178 presents answers to a question on investment authority by account manager type. Table VIII-79 shows the frequency of review of accounts by their managers.

<sup>111</sup> Int. Rev. Code of 1969 § 4940.

<sup>112</sup> Int. Rev. Code of 1969 § 4941.

<sup>113</sup> Int. Rev. Code of 1969 § 4943. The act provides, however, for a gradual reduction of excess business holdings for these organizations having excessive holdings in a business enterprise at the enactment of the statute.

<sup>114</sup> Int. Rev. Code of 1969 § 4944.

<sup>115</sup> Int. Rev. Code of 1969 § 4942. See generally Goldstein & Sharpe, "Private Charitable Foundations After Tax Reform," 56 A.B.A.J. 447 (1970).

TABLE VIII-177  
 Foundations  
 Measurement of Investment Performance  
 (Percent of Total Accounts)

	Number of Accounts*	Investment Performance is Measured By				Rate is Calculated			
		Foundation		Agent		Each Internal Between Valuation Dates	Less Frequently	More Frequently	NOT
		YES	NO	YES	NO				
Bank-Managed	10	40.00	50.00	60.00	40.00	20.00	50.00	0.00	30.00
Investment Adviser-Managed	3	66.67	33.33	33.33	66.67	33.33	33.33	0.00	33.33
Self-Managed	14	78.57	21.43	7.14	78.57	50.00	21.43	14.29	14.29
Total	27	62.96	33.33	25.93	62.96	37.04	33.33	7.41	22.22

\* Maximum number presented. The fact that percentages in some yes-no combinations do not add to 100 can be attributed to the failure of some respondents to answer particular questions.

TABLE VIII-178  
 Foundations  
 Investment Authority of Account Manager 1/  
 (Percent of Total Accounts)

Account Type	Number of Accounts	Sole Investment Authority	Authority for Day-to-Day Within Guidelines	Seldom Overruled But Must Consult Before Trades
Bank-Managed	10	10.00	10.00	80.00
Investment Adviser-Managed	3	0.00	66.67	33.33
Self-Managed	16	31.25	43.75	25.00
Total	29	20.69	34.48	44.83

1/ Investment Department for Self-Managed.

TABLE VIII-179  
 Foundations  
 Frequency of Account Review by Manager 1/  
 (Percent of Total Accounts)

Account Type	Number of Accounts	Daily <u>2/</u>	Weekly	Monthly	Quarterly	Annually	Other
Bank-Managed	10	10.00	10.00	30.00	50.00	0.00	0.00
Investment Adviser-Managed	3	0.00	66.67	33.33	0.00	0.00	0.00
Self-Managed	15	33.33	6.67	26.67	26.67	6.67	0.00
<b>Total</b>	<b>28</b>	<b>21.43</b>	<b>14.29</b>	<b>28.57</b>	<b>32.14</b>	<b>3.57</b>	<b>0.00</b>

1/ Investment Department for self-managed.

2/ Includes "continuously."

## 2. Self-Administered Foundations

*a. The investment department*

Fifteen of the 16 foundations having self-administered accounts responded to portions of Form I-48. As was the case with endowments and corporate pension-benefit plan investment departments, the ranking of approaches to securities evaluation was "Fundamental Approach" first, "Economic Outlook" second, and "Technical" third.<sup>116</sup> A typical example of "Other" was "Security of the investment and return on investment." Table VIII-180 shows the results.

TABLE VIII-180  
IMPORTANCE OF APPROACHES TO SECURITIES EVALUATION FOR 14 FOUNDATIONS  
(PERCENT OF RESPONDING FOUNDATIONS)

Approach	Importance code <sup>1</sup>				
	1	2	3	4	5
Fundamental.....	43.00	21.50	7.15	14.30	14.30
Technical.....	0	7.15	21.45	28.60	43.00
Economic outlook.....	0	35.75	35.75	7.15	21.45
Other.....	14.30	-----	-----	7.15	14.30

<sup>1</sup> See sec. C.2.d above for meaning of importance codes.

Like the pattern with endowments and corporate plan investment departments, but unlike state and local government investment departments, the financial statements of issuers was the most important source of external information. Table VIII-181 summarizes these answers.

TABLE VIII-181  
IMPORTANCE OF SOURCES OF RESEARCH AND INFORMATION FOR 15 FOUNDATIONS  
(PERCENT OF RESPONDING FOUNDATIONS)

Source	Importance code <sup>1</sup>				
	1	2	3	4	5
Information and recommendations from broker-dealers purchased via commission dollars.....	13.33	6.67	6.67	6.67	46.67
Information and recommendations purchased from investment advisers on a continuing or contractual basis.....	0	13.33	0	6.67	60.00
Information and recommendations received from other research organization not included above (with or without compensation).....	0	26.66	6.67	20.00	33.35
Direct contact with security issuers.....	6.67	13.33	6.67	20.00	40.00
Financial statements of issuers.....	26.67	20.00	13.33	6.67	20.00
Others.....	6.67	6.67	-----	-----	26.67

<sup>1</sup> See sec. C.2.d above.

Three of the investment departments used an approved list for purchases, two used such a list for sales and two used one for holds. Ten departments had no analysts, three had one or two analysts and two had more than two. Four departments had 15 analysts with advanced degrees in business, law or related fields. Three departments had analysts responsible for covering issuers in one or more specific industries. Three departments stated that their analysts spend 0 to 20 percent of

<sup>116</sup> These approaches are defined in sec. C.3 above.

their time in personal contact with issuers, and two departments reported that their analysts spend 20 to 40 percent of their time in such contact. Table VIII-182 tabulates the responses to our question dealing with the composition of the investment department's personnel.

TABLE VIII-182  
PERSONNEL COMPOSITION OF 15 FOUNDATIONS' INVESTMENT DEPARTMENTS 1964-1969

Employment category	Full-time equivalents		Growth rate (percent)
	Dec. 21, 1964	Dec. 31, 1969	
Account supervisors and portfolio managers.....	16.3	17.9	+9.82
Economic research staff.....	0	0	-----
Investment research staff.....	7.8	13.2	+69.23
Professional traders.....	1.0	4.2	+320.00
Clerical, secretarial.....	19.0	29.0	+52.63
Executives (not included above).....	7.0	9.0	+28.57
Other.....	1.5	1.5	-----
Total.....	52.6	74.8	+42.21

### *b. Reasons for being internally managed*

The portfolios of many foundations consist of stock of a single company and short term U.S. treasury obligations. Therefore, an elaborate referral organization or outside management seems unnecessary to them.

Other responses included the following:

"The Foundation's assets have been managed by the Creator and the results of his management substantiate the decision not to use an outside manager."

"Internal management has been chosen because the services of outside advisors employed during earlier years did not meet the particular requirements and objective of the Foundation."

"Investment of available funds of the trust is limited by the terms of the Trust Indenture to certain specific categories of investments and within these limitations, the Trust's assets can be adequately managed by the Investment Committee."

"The trustees have been satisfied with the performance of the in-house asset. Consideration is currently being given to the employment of outside management services for a portion of the portfolio."

### 3. Investment Practices and Measures

In this section, the Study presents the results of studies of the investment practices of foundations. These studies essentially parallel the studies of corporate pension-benefit plans made for C.3 section of this chapter and for other accounts in sections D, E, and F. Data concerning asset holdings, transactions and fees were collected from the accounts which received the Study's detailed questionnaires. These data have permitted the preparation of tables setting forth in detail the composition of accounts according to the type of assets held and showing common stock holdings according to the exchange listing of issues held for two points in time, yearend 1964 and yearend 1969. In addition, tables showing common stock turnover and activity rates for each of the five years 1965 through 1969 and fee and expense rates for each of the four years 1966 through 1969 were prepared. Finally, analysis of growth in total assets and common stock holdings is presented.

TABLE VII-183---  
 FOUNDATIONS <sup>1/</sup>  
 GROWTH IN COMMON STOCK AND TOTAL ASSETS  
 1964 to 1969

Account Type	Number of Accounts	1964 Common \$	1969 Common \$	Percentage Change	1964 Total \$	1969 Total \$	Percentage Change	Percentage Change in Ratio of Common to Total <sup>2/</sup>
Bank-Managed	8	934.7	1150.1	+23.04%	1312.3	1476.6	+12.52%	+9.35%
Investment Adviser-Managed	3	518.1	501.7	-3.17%	631.6	600.9	-4.86%	+1.78%
Self-Managed	14	5972.4	5255.9	-12.00%	7469.4	6645.3	-11.03%	-1.09%
Total	25	7425.1	6907.7	-6.97%	9413.2	8722.8	-7.33%	+0.39%

<sup>1/</sup> Dollars in millions.

<sup>2/</sup> See Table VIII - 17, supra., for formula.

*a. Assets composition measures*

(1) *By asset category.*—As explained in more detail in section C.3, above, Form I-21 collected data on asset holdings of accounts by type of asset. Tables VIII-184 through -207, at the end of this section, present the results of this questionnaire for accounts of foundations.

Table VIII-184 and Table VIII-185 present respectively dollar amounts and percentages of total assets in major asset categories as reported for yearend 1969 for the 29 accounts in the Study's sample which reported for that date. Each of the six columns of major categories is broken down into more detailed categories and the dollar amounts in these refined categories are reported on Tables VIII-186 through -191. Percentages have not been presented for the detailed categories. Columns and rows on the dollar-amount tables may not add exactly due to rounding, and on the detail tables some subcategories of assets may not add, in given rows, to the amount shown, as a total for the category since some respondents did not break down the category as requested when reporting on Form I-21.

Because the 29 accounts which supplied 1969 yearend data were not all in existence at yearend 1964, in order to assess change over the five year period, the Study tabulated the 1964 and 1969 yearend reports of the 25 accounts which reported for 1964. The series of Tables, VIII-192 through -207 present these results. The nature of the tables is the same as Tables VIII-184 through -191; however, each table showing 1964 data is followed immediately by its 1969 counterpart. Thus, the even numbered tables show 1964 data and the odd numbered tables show 1969 data. The juxtaposition of these reports permits ready comparison of the values reported for purposes of estimating change in holding patterns and growth over the period studied. The first two of these tables, VIII-192 and -193, are summary tables showing dollar amounts. The next two tables, VIII-194 and -195, show percentages of total assets in the major categories based on the dollar amounts given in the first two tables. The next six pairs of tables, VIII-196 through -207, present dollar amounts and give, in turn, a more detailed look at the major categories presented on the summary tables.

(2) *Growth in common stock and total assets.*—The data presented in Tables VIII-192 through -207 have been analyzed to calculate growth of total assets and growth of common stock holdings within the group of 25 accounts over the five year period, yearend 1964 through yearend 1969. In addition, the change in the ratio of common stock to total assets over the period was measured. Table VIII-183 summarizes these calculations. It should be cautioned that this analysis does not take into account the components of growth, contributions and investment return, and that the figures presented are not intended to and do not necessarily reflect the investment results of any of the types of managers or categories of accounts. An examination of the Table reveals that all categories of accounts except bank managed declined in both total assets and common stock over the five year period, and that for the bank managed the growth was moderate. The ratio of stock to assets remained fairly constant overall, although bank managed accounts did increase their percentage of common stock.

(3) *Common stock held by exchange listing of issuer.*—On Form I-24, the Study collected data about the common stock holdings of particular accounts.<sup>117</sup> Specifically, respondents were asked to give the market value of stock held in each of the following categories: NYSE listed securities; American Stock Exchange listed securities; stock banks or insurance companies not listed on either the Amex or the NYSE; other common stock; and total.

Tables VIII-208, -209 and -210 present the values reported by foundation accounts. These tables follow the general pattern of the asset category tables. Table VIII-208 gives 1969 information for the 29 accounts which reported as of yearend 1969; while Tables VIII-209 and -210 present respectively 1964 and 1969 yearend values for the 27 accounts which reported first as of yearend 1964. Table VIII-48, presented in section C.3 of this chapter provides the proper background against which to view the figures reported on these tables. This comparison reveals that for foundation accounts while they hold a high percentage of their stock assets in NYSE-listed equities, the percentage approaches the level of NYSE-listed equities to all equities.

*b. Common stock turnover and activity rates*

Form I-26 provided annual data for 1965 through 1969 on gross purchases, sales and holdings of common equities. These data have permitted the Study to calculate common stock turnover (TOV) and activity (ACT) rates for the reporting accounts. These calculations have been made in the manner described in section C.3.b of this chapter in connection with corporate pension-benefit plan accounts. Table VIII-211 shows the weighted average TOV and ACT rates for each of the five years for reporting accounts. These figures show that although foundation accounts have had increasing turnover and activity rates, these rates are still moderate.

Because of the limited number of usable observations, no attempt was made to relate statistically turnover rate with various account characteristics as was done for corporate plan accounts.

*c. Fee and expense rates*

Using the same methods as were used for corporate pension-benefit plan accounts, the Study used data collected on Form I-25 and other forms to calculate fee and expense rates for foundation accounts. The results are presented in Table VIII-212. Again, because of the limited number of usable observations, no attempt was made to relate fee rates with other account characteristic through statistical analyses.

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<sup>117</sup> See Supp. Vol. II for a reproduction of Form I-24.

TABLE VIII-184  
 FOUNDATIONS, ASSET HOLDINGS - 1969 -  
 SUMMARY (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	CASH	GOVTS. & SHORT- TERM	NONGOVT LONG- TERM	COMMON & WARRANTS	MORTGAGE REAL ESTATE	OTHER ASSETS	TOTAL ASSETS
BANK-MANAGED	11	1.4	89.5	267.5	1249.4	13.4	80.9	1702.1
I/A MANAGED	3	4.9	40.2	44.4	501.7	7.4	2.3	600.9
SELF-MANAGED	15	78.0	446.9	630.1	5483.4	153.8	130.5	6922.7
TOTAL	29	24.3	576.6	941.9	7234.6	174.6	213.7	9225.7

TABLE VIII-185  
 FOUNDATIONS, ASSET HOLDINGS - 1969 -  
 PERCENTAGES (PERCENT OF TOTAL ASSETS)

ACCOUNT TYPE	N	CASH	GOVTS & SHORT- TERM	NONGOVT LONG- TERM	COMMON & WARRANTS	MORTGAGE REAL ESTATE	OTHER ASSETS	TOTAL ASSETS
Bank-Managed	11	0.08	5.26	15.72	73.40	0.79	4.75	100.00
I/A Managed	3	0.82	6.69	7.39	83.49	1.23	0.38	100.00
Self-Managed	15	1.13	6.46	9.10	79.21	2.22	1.89	100.00
TOTAL	29	0.91	6.25	10.21	78.42	1.89	2.32	100.00

TABLE VIII-186  
 FOUNDATIONS, ASSET HOLDINGS - 1969 - CASH  
 AND NONCASH ITEMS (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	CURRENCY DEMAND DP M-BKS	CURRENCY DEMAND DP ELSE	TOTAL CURRENCY DEM DEPS	C.O.*S	OTH.TIME & SAV DP IN BANKS	OTH.TIME & SAV DEPOSITS	TOTAL CASH & NEARCASH
BANK-MANAGED	11	0.8	0.6	1.4	0.0	0.0	0.0	1.4
I/A MANAGED	3	0.0	4.8	4.9	0.0	0.0	0.0	4.9
SELF-MANAGED	15	0.0	38.8	38.8	38.5	0.7	0.0	78.0
TOTAL	29	0.8	44.2	45.1	38.5	0.7	0.0	84.3

TABLE VIII-187  
 FOUNDATIONS, ASSET HOLDINGS - 1969 -  
 GOVERNMENT SECURITIES AND NONGOVERNMENT  
 SHORT-TERM SECURITIES (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	US GOVT SHORT- TERM	US GOVT LCNG- TERM	US GOVT TOTAL	US STATE & LOCAL GOVT	FOREIGN GOVT	NONGOVT SHORT- TERM	NONGOVT SHRT TRM FOREIGN	NONGOVT SHRT TRM TOTAL
BANK-MANAGED	11	2.4	38.0	40.4	19.6	6.1	23.5	0.0	23.5
I/A MANAGED	3	0.1	20.3	20.3	0.0	1.7	18.2	0.0	18.2
SELF-MANAGED	15	73.6	263.7	337.3	2.5	37.5	69.6	0.0	69.6
TOTAL	29	76.1	321.9	398.0	22.0	45.3	111.2	0.0	111.2

TABLE VIII-188  
 FOUNDATIONS, ASSET HOLDINGS - 1969 -  
 NONGOVERNMENT LONG-TERM DEBT (IN  
 MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	RESTRICT US ISSUE W/EQUITY	OTHER US ISSUE W/EQUITY	TOTAL- LS ISSUE W/EQUITY	RESTRICT US ISSUE WO/EQUIT	OTHER US ISSUE WO/EQUIT	TOTAL US ISSUE WO/EQUIT	FOREIGN ISSUERS	TOTAL NONGCVT LT DEBT
BANK-MANAGED	11	0.3	29.0	29.3	25.8	189.5	215.3	22.9	267.5
I/A MANAGED	3	0.0	0.6	0.6	0.0	0.2	43.0	0.7	44.4
SELF-MANAGED	15	62.6	161.2	223.8	234.3	139.0	373.3	33.0	630.1
<b>TOTAL</b>	<b>29</b>	<b>62.8</b>	<b>190.9</b>	<b>253.7</b>	<b>260.1</b>	<b>328.7</b>	<b>631.6</b>	<b>56.6</b>	<b>941.9</b>

TABLE VIII-189  
 FOUNDATIONS, ASSET HOLDINGS - 1969 - COMMON  
 STOCK AND EARRANTS (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	ADR'S & FCREIGN ISSUERS	RESTRICT ED U.S. ISSUER	INVESTMT COMPANY SHARES	AFFILIAT ED COMP- ANY SHS.	OTHER U.S. ISSUFRS	TOTAL COMMON STOCK	WARRANTS RIGHTS & OPTIONS
BANK-MANAGED	11	9.0	207.2	0.0	100.7	932.5	1249.4	0.0
I/A MANAGED	3	3.2	55.7	1.0	162.0	279.8	501.7	0.0
SELF-MANAGED	15	78.9	136.5	0.0	2139.4	3128.6	5483.4	0.1
TOTAL	29	91.1	399.4	1.0	2402.1	4340.9	7234.5	0.1

TABLE VIII-190  
 FOUNDATIONS, ASSET HOLDINGS - 1969 -  
 MORTGAGES AND REAL ESTATE (IN MILLIONS  
 OF DOLLARS)

ACCOUNT TYPE	N	MORTGAGE 1- TO 4- FAMILY	OTHER MORTGAGE WO/EQUIT	MORTGAGE WG/ FQUIT TOTAL	MORTGAGE WITH EQUITY	TOTAL MORTGAGE	REAL ESTATE OWNED
BANK-MANAGED	11	0.6	10.5	11.1	0.0	11.1	2.3
I/A MANAGED	3	0.0	0.0	0.0	0.0	0.0	7.4
SELF-MANAGED	15	0.0	37.0	37.0	7.6	46.6	107.2
TOTAL	29	0.6	47.5	48.1	7.6	57.7	116.9

TABLE VIII-191  
 FOUNDATIONS, ASSET HOLDINGS - 1969 -  
 PREFERRED STOCK AND OTHER ASSETS (IN  
 MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	CONVERT. PREFERRED US ISSUE	NONCONV'T PREFERRED LS ISSUE	TOTAL PREFERRED	POLICY LOANS	DUE FROM AFFILIAT COMPANY	ACCOUNTS RECEIVABLE FROM BROKERS	ALL OTHER	OTHER ASSETS TOTAL
BANK-MANAGED	11	7.7	0.6	8.2	0.0	0.0	0.0	72.6	72.6
I/A MANAGED	3	0.1	0.0	0.1	0.0	0.0	0.0	2.2	2.2
SELF-MANAGED	15	64.0	6.5	70.5	0.0	8.5	1.0	50.5	60.0
TOTAL	29	71.8	7.1	78.8	0.0	8.5	1.0	125.4	134.8

TABLE VIII-192  
 FOUNDATIONS, ASSET HOLDINGS - 1964 -  
 SUMMARY (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	CASH	GOVTS & SHORT- TERM	NONGOVT LONG- TERM	COMMON & WARRANTS	MORTGAGE REAL ESTATE	OTHER ASSETS	TOTAL ASSETS
BANK-MANAGED	8	7.0	76.1	157.9	934.7	19.1	117.5	1312.3
I/A MANAGED	3	12.0	69.4	23.3	518.1	5.5	3.2	631.6
SELF-MANAGED	14	128.1	708.0	473.0	5972.4	116.2	71.7	7469.4
TOTAL	25	147.1	853.4	654.2	7425.1	140.8	192.5	9413.2

TABLE VIII-193  
 FOUNDATIONS, ASSET HOLDINGS - 1969 (ACCOUNTS  
 REPORTING ALSO FOR 1964) - SUMMARY (IN  
 MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	CASH	GOVTS & SHORT- TERM	NCNGOVT LONG- TERM	CCMMGN & WARRANTS	MORTGAGE REAL ESTATE	OTHER ASSETS	TOTAL ASSETS
BANK-MANAGED	8	1.1	63.4	171.5	1150.1	12.8	77.7	1476.6
I/A MANAGED	3	4.9	40.2	44.4	501.7	7.4	2.3	600.9
SELF-MANAGED	14	77.9	397.3	630.0	5255.9	153.8	130.3	6645.3
<b>TOTAL</b>	<b>25</b>	<b>83.9</b>	<b>500.9</b>	<b>845.9</b>	<b>6907.7</b>	<b>174.0</b>	<b>210.3</b>	<b>8722.8</b>

TABLE VIII-194  
 FOUNDATIONS, ASSET HOLDINGS - 1964 -  
 PERCENTAGES (PERCENT OF TOTAL ASSETS)

ACCOUNT TYPE	N	CASH	GOVTS & SHORT- TERM	NONGOV'T LONG- TERM	COMMON & WARRANTS	MORTGAGE REAL ESTATE	OTHER ASSETS	TOTAL ASSETS
Bank-Managed	8	0.53	5.80	12.03	71.23	1.46	8.95	100.00
I/A Managed	3	1.90	10.99	3.69	82.03	0.87	0.51	100.00
Self-Managed	14	1.72	9.48	6.33	79.96	1.56	0.96	100.00
TOTAL	25	1.56	9.07	6.95	78.88	1.50	2.05	100.00

TABLE VIII-195  
 FOUNDATIONS, ASSET HOLDINGS - 1969 (ACCOUNTS  
 REPORTING ALSO FOR 1964) - PERCENTAGES  
 (PERCENT OF TOTAL ASSETS)

ACCOUNT TYPE	N	CASH	GOVTS & SHORT- TERM	NONGOV'T LONG- TERM	COMMON & WARRANTS	MORTGAGE REAL ESTATE	OTHER ASSETS	TOTAL ASSETS
BANK-MANAGED	8	0.07	4.29	11.61	77.89	0.87	5.26	100.00
I/A MANAGED	3	0.82	6.69	7.39	83.49	1.23	0.38	100.00
SELF-MANAGED	14	1.17	5.98	9.48	79.09	2.31	1.96	100.00
TOTAL	25	0.96	5.74	9.70	79.19	1.99	2.41	100.00

TABLE VIII-196  
 FOUNDATIONS, ASSET HOLDINGS - 1964 - CASH  
 AND NEARCASH ITEMS (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	CURRENCY DEMAND DP M-BKS	CURRENCY DEMAND DP ELSE	TOTAL CURRENCY DEM DEPS	C.D.'S	OTH.TIME & SAV DP IN BANKS	OTH.TIME & SAV DEPOSITS	TOTAL CASH & NEARCASH
BANK-MANAGED	8	0.8	1.1	1.9	0.5	4.6	0.0	7.0
I/A MANAGED	3	0.0	8.1	8.1	0.0	3.9	0.0	12.0
SELF-MANAGED	14	0.0	31.9	31.9	39.2	5.6	50.9	128.1
TOTAL	25	0.8	41.0	41.8	39.7	14.1	50.9	147.1

TABLE VIII-197  
 FOUNDATIONS, ASSET HOLDINGS - 1969 (ACCOUNTS  
 REPORTING ALSO FOR 1964) - CASH AND NEARCASH  
 ITEMS (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	CURRENCY DEMAND DP M-BKS	CURRENCY DEMAND DP ELSE	TOTAL CURRENCY DEM DEFS	C.D.'S	OTH.TIME & SAV DP IN BANKS	OTH.TIME & SAV DEPOSITS	TOTAL CASH & NEARCASH
BANK-MANAGED	8	0.5	0.6	1.1	0.0	0.0	0.0	1.1
I/A MANAGED	3	0.0	4.8	4.9	0.0	0.0	0.0	4.9
SELF-MANAGED	14	0.0	38.7	38.7	38.5	0.7	0.0	77.9
TOTAL	25	0.5	44.2	44.7	38.5	0.7	0.0	83.9

TABLE VIII-198  
 FOUNDATIONS, ASSET HOLDINGS - 1964 -  
 GOVERNMENT SECURITIES AND NONGOVERNMENT  
 SHORT-TERM SECURITIES (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	US GOVT SHORT- TERM	US GOVT LONG- TERM	US GOVT TOTAL	US STATE & LOCAL GOVT	FOREIGN GOVT	NONGOVT SHORT- TERM	NONGOVT SHORT TRM FOREIGN	NONGOVT SHORT TRM TOTAL
BANK-MANAGED	8	5.2	52.5	57.7	2.6	4.8	11.0	0.0	11.0
I/A MANAGED	3	6.6	55.0	61.6	0.0	0.8	7.0	0.0	7.0
SELF-MANAGED	14	33.5	553.8	592.3	4.1	96.9	8.9	5.8	14.7
TOTAL	25	45.2	666.4	711.6	6.7	102.5	26.9	5.8	32.7

TABLE VIII-199  
 FOUNDATIONS, ASSET HOLDINGS - 1969 (ACCOUNTS  
 REPORTING ALSO FOR 1964) - GOVERNMENT  
 SECURITIES AND NONGOVERNMENT SHORT-TERM  
 SECURITIES (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	US GOVT SHORT- TERM	US GOVT LONG- TERM	US GOVT TOTAL	US STATE & LOCAL GOVT	FOREIGN GOVT	NONGOV'T SHORT- TERM	NONGOV'T SHORT TRM FOREIGN	NONGOV'T SHORT TRM TOTAL
BANK-MANAGED	8	1.0	25.2	26.2	19.6	2.9	14.8	0.0	14.8
I/A MANAGED	3	0.1	20.3	20.3	0.0	1.7	18.2	0.0	18.2
SELF-MANAGED	14	24.0	263.7	287.7	2.5	37.5	69.6	0.0	69.6
TOTAL	25	25.1	309.1	334.2	22.0	42.1	102.6	0.0	102.6

TABLE VIII-200  
 FOUNDATIONS, ASSET HOLDINGS - 1964 -  
 NONGOVERNMENT LONG-TERM DEBT (IN  
 MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	RESTRICT US ISSUE W/EQUITY	OTHER US ISSUE W/EQUITY	TOTAL US ISSUE W/EQUITY	RESTRICT US ISSUE WO/FQUIT	OTHER US ISSUE WO/EQUIT	TOTAL US ISSUE WO/FQUIT	FOREIGN ISSUERS	TOTAL NONGOV'T LT DEBT
BANK-MANAGED	8	0.0	1.2	1.2	15.7	127.2	142.9	13.8	157.9
I/A MANAGED	3	0.0	1.7	1.7	0.0	21.0	21.0	0.7	23.3
SELF-MANAGED	14	34.1	16.7	51.3	197.3	135.6	361.6	60.0	473.0
TOTAL	25	34.1	19.6	54.2	213.1	283.9	525.5	74.5	654.2

TABLE VIII-201  
 FOUNDATIONS, ASSET HOLDINGS - 1969 (ACCOUNTS  
 REPORTING ALSO FOR 1964) - NONGOVERNMENT LONG-  
 TERM DEBT (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	RESTRICT US ISSUE w/EQUITY	CTHER US ISSUE w/EQUITY	TOTAL US ISSUE w/EQUITY	RESTRICT US ISSUE w/EQUIT	CTHER US ISSUE w/EQUIT	TOTAL US ISSUE w/EQUIT	FOREIGN ISSUERS	TOTAL NONGOV'T LT DEBT
BANK-MANAGED	8	0.3	25.7	26.0	14.8	111.9	126.6	18.9	171.5
I/A MANAGED	3	0.0	0.6	0.6	0.0	0.2	43.0	0.7	44.4
SELF-MANAGED	14	62.6	161.2	223.8	234.3	139.0	373.3	33.0	630.0
TOTAL	25	62.8	187.6	250.4	249.1	251.0	542.9	52.7	845.9

TABLE VIII-202  
 FOUNDATIONS, ASSET HOLDINGS - 1964 - COMMON  
 STOCK AND WARRANTS (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	ADR'S & FOREIGN ISSUERS	RESTRICT ED U.S. ISSUER	INVESTMT COMPANY SHARES	AFFILIAT EC COMP- ANY SHS.	OTHER U.S. ISSUERS	TOTAL COMMON STOCK	WARRANTS RIGHTS & OPTIONS
BANK-MANAGED	8	35.6	106.5	1.1	44.6	746.9	934.7	0.0
I/A MANAGED	3	2.7	102.4	0.8	106.5	305.7	518.1	0.0
SELF-MANAGED	14	58.0	143.6	8.6	3163.5	2597.9	5971.6	0.8
TOTAL	25	96.3	352.6	10.4	3314.6	3650.4	7424.4	0.8

TABLE VIII-203  
 FOUNDATIONS, ASSET HOLDINGS - 1969 (ACCOUNTS  
 REPORTING ALSO FOR 1964) - COMMON STOCK AND  
 WARRANTS (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	ADR'S & FOREIGN ISSUERS	RESTRICT ED U.S. ISSUER	INVESTMT COMPANY SHARES	AFFILIAT ED COMP- ANY SHS.	OTHER U.S. ISSUERS	TOTAL COMMON STOCK	WARRANTS RIGHTS & OPTIONS
BANK-MANAGED	8	8.7	277.2	0.0	100.7	833.5	1150.1	0.0
I/A MANAGED	3	3.2	55.7	1.0	162.0	279.8	501.7	0.0
SELF-MANAGED	14	78.9	136.5	0.0	2139.4	2901.0	5255.8	0.1
TOTAL	25	90.8	399.4	1.0	2402.1	4014.3	6907.7	0.1

TABLE VIII-204  
 FOUNDATIONS, ASSET HOLDINGS - 1964 - MORTGAGES  
 AND REAL ESTATE (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	MORTGAGE 1- TO 4- FAMILY	OTHER MORTGAGE WO/EQUIT	MORTGAGE WO/EQUIT TOTAL	MORTGAGE WITH EQUITY	TOTAL MORTGAGE	REAL ESTATE OWNED
BANK-MANAGED	8	0.0	16.4	16.4	0.0	16.4	2.7
I/A MANAGED	3	0.0	0.0	0.0	0.0	0.0	5.5
SELF-MANAGED	14	0.0	25.6	25.6	6.5	32.0	84.2
TOTAL	25	0.0	41.9	41.9	6.5	48.4	92.4

TABLE VIII-205  
 FOUNDATIONS ASSET HOLDINGS - 1969 (ACCOUNTS  
 REPORTING ALSO FOR 1964) - MORTGAGES AND  
 REAL ESTATE (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	MORTGAGE 1- TO 4- FAMILY	CTHER MORTGAGE WO/EQUIT	MORTGAGE WO/EQUIT TOTAL	MORTGAGE WITH EQUITY	TOTAL MORTGAGE	REAL ESTATE OWNED
BANK-MANAGED	8	0.0	10.5	10.5	0.0	10.5	2.3
I/A MANAGED	3	0.0	0.0	0.0	0.0	0.0	7.4
SELF-MANAGED	14	0.0	37.0	37.0	7.6	46.6	107.2
TOTAL	25	0.0	47.5	47.5	7.6	57.1	116.9

TABLE VIII-206  
 FOUNDATIONS, ASSET HOLDINGS - 1964 - PREFERRED  
 STOCK AND OTHER ASSETS (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	CONVERT. PREFERRD US ISSUE	NONCONV'T PREFERRD US ISSUE	TOTAL PREFERRD	POLICY LOANS	DUE FROM AFFILIAT COMPANY	ACCOUNTS PCBLE FR BROKERS	ALL OTHER	OTHER ASSETS TOTAL
BANK-MANAGED	8	0.0	5.5	5.5	0.0	0.0	0.0	112.0	112.0
I/A MANAGED	3	0.2	0.6	0.8	0.0	0.0	0.0	2.4	2.4
SELF-MANAGED	14	4.1	12.4	18.7	0.0	8.7	3.1	41.3	53.1
TOTAL	25	4.3	18.5	25.0	0.0	8.7	3.1	155.8	167.5

TABLE VIII-207  
 FOUNDATIONS, ASSET HOLDINGS - 1969 (ACCOUNTS  
 REPORTING ALSO FOR 1964) - PREFERRED STOCK  
 AND OTHER ASSETS (IN MILLIONS OF DOLLARS)

ACCOUNT TYPE	N	CONVERT. PREFFRD US ISSUE	NONCONV'T PREFFRD LS ISSUE	TOTAL PREFFRD	PCLICY LOANS	DUE FRGM AFFILIAT CCMPANY	ACCOUNTS RCBLE FR BROKERS	ALL OTHER	OTHER ASSETS TOTAL
BANK-MANAGED	8	4.9	0.2	5.0	0.0	0.0	0.0	72.6	72.6
I/A MANAGED	3	0.1	0.0	0.1	0.0	0.0	0.0	2.2	2.2
SELF-MANAGED	14	64.0	6.3	70.3	0.0	8.5	1.0	50.5	60.0
TOTAL	25	69.0	6.5	75.5	0.0	8.5	1.0	125.4	134.8

TABLE VIII-208  
 FOUNDATIONS, HOLDINGS OF COMMON STOCK BY  
 EXCHANGE LISTING

ACCOUNT TYPE	NO.	NYSE LISTED		AMEX LISTED		BANKS & INS. COS.		OTHER		TOTAL	
		\$	%	\$	%	\$	%	\$	%	\$	%
Bank- Managed	11	1088.6	87.40	0.5	0.03	43.6	3.49	112.8	9.05	1245.5	100.00
Investment Adviser Managed	3	275.6	81.39	0.0	0.00	13.8	4.07	49.2	14.52	338.6	100.00
Self- Managed	15	4012.3	74.71	19.9	0.37	206.8	3.85	1131.4	21.07	5370.4	100.00
Total	29	5376.5	77.31	20.3	0.29	264.2	3.80	1293.4	18.60	6954.4	100.00

Note: All dollar values in millions of dollars.

TABLE VIII-209  
 FOUNDATIONS, HOLDINGS OF COMMON STOCK BY  
 EXCHANGE LISTING

ACCOUNT TYPE	NO.	NYSE LISTED		AMEX LISTED		BANKS & INS. COS.		OTHER		TOTAL	
		\$	%	\$	%	\$	%	\$	%	\$	%
Bank- Managed	9	828.9	87.73	3.6	0.37	44.0	4.66	68.2	7.22	944.8	100.00
Investment Adviser Managed	3	226.3	54.96	0.0	0.00	9.7	2.35	175.7	42.67	411.6	100.00
Self- Managed	15	5294.5	86.02	8.9	0.14	389.1	6.32	462.4	7.51	6154.9	100.00
Total	27	6349.7	84.53	12.5	0.16	442.8	5.89	706.3	9.40	7511.3	100.00

Note: All dollar values in millions of dollars.

TABLE VIII-210  
 FOUNDATIONS -- 1969 (ACCOUNTS REPORTING ALSO  
 FOR 1964), HOLDINGS OF COMMON STOCK BY  
 EXCHANGE LISTING

ACCOUNT TYPE	NO.	NYSE LISTED		AMEX LISTED		BANKS & INS. COS.		OTHER		TOTAL	
		\$	%	\$	%	\$	%	\$	%	\$	%
Bank- Managed	9	1003.4	86.70	0.2	0.01	41.0	3.53	112.6	9.73	1157.2	100.00
Investment Adviser Managed	3	275.6	81.39	0.0	0.00	13.8	4.07	49.2	14.52	338.6	100.00
Self- Managed	15	4012.3	74.71	19.9	0.37	206.8	3.85	1131.4	21.06	5370.4	100.00
Total	27	5291.2	77.06	20.1	0.29	261.6	3.81	1293.2	18.83	6866.2	100.00

Note: All dollar values in millions of dollars.

TABLE VIII-211  
 FOUNDATIONS, TURNOVER AND ACTIVITY RATES  
 1965 - 1969

ACCOUNT TYPE	1965			1966			1967			1968			1969		
	N	TOV	ACT	N	TOV	ACT	N	TOV	ACT	N	TOV	ACT	N	TOV	ACT
BANK MANAGED	8	4.66	5.98	8	5.26	6.93	9	6.20	6.90	9	5.61	7.77	10	5.37	6.54
I/A MANAGED	3	16.00	16.44	3	7.58	7.91	3	14.45	17.50	3	4.74	7.02	3	4.91	6.17
SELF MANAGED	11	1.55	3.07	11	1.48	3.39	11	3.24	5.26	11	4.78	7.44	11	5.18	7.38
TOTAL	22	3.59	4.97	22	2.74	4.45	23	4.85	6.69	23	4.95	7.48	24	5.20	7.11

TABLE VIII-212  
 FOUNDATIONS, FEE AND EXPENSES RATES  
 1966 - 1969

ACCOUNT TYPE	1966			1967			1968			1969			1969*		
	N	FEE	EXP	N	FEE	EXP									
BANK MANAGED	8	.05%	.00%	9	.04%	.01%	9	.03%	.01%	10	.04%	.01%	10	.04%	.01%
I/A MANAGED	2	.02%	.02%	2	.02%	.03%	2	.02%	.03%	2	.03%	.04%	2	.03%	.04%
SELF MANAGED	9	.00%	.04%	9	.00%	.03%	9	.00%	.03%	9	.00%	.04%	9	.00%	.04%
TOTAL	19	.01%	.03%	20	.02%	.02%	20	.01%	.02%	21	.02%	.03%	21	.02%	.03%

\*Fee and expense rates based on 1969, Form I-21 Total assets.

## H. SUMMARY AND CONCLUSIONS

Chapter VIII considers certain institutional portfolio groups which are among the major clients of the institutional investment managers covered in the preceding chapters. In addition, the chapter examines self-managed portfolios and their investment departments as institutional managers. The portfolio groups examined include noninsured corporate and multiemployer pension-benefit plans, State and local government retirement systems, educational endowments, and private foundations. Insured accounts are examined in chapter VI.

The Study concentrated its data collection and analytical efforts for this chapter upon samples of each portfolio type chosen to maximize coverage of assets while minimizing the number of individual respondents. The largest members of each portfolio group, then, are the subjects of this chapter.

Noninsured corporate pension-benefit plans is a category consisting primarily of pension plans and profitsharing plans and to a much lesser extent savings and thrift plans and stock and bond purchase plans. An element common to the members of the category is that benefits in some form are received at or after retirement, or other termination of employment. The principal difference between pension plans and profit-sharing plans lies in the nature of the employer's contributions. In the typical pension plan, employer contributions are made periodically at such times and in such amounts as are determined actuarially to be adequate to provide the benefits conferred by the plan as they become payable. In the case of the typical profit-sharing plan, by contrast, the employer contributes amounts out of profits from time to time and the plan contains a formula permitting calculation of the employee's interests in the fund and the benefits to be paid to participants who qualify.

Both types of plans may provide for employee as well as employer contributions; occasionally, employee contributions may be required. In a fairly high percentage of the larger plans, about 50 percent, employees may, prior to retirement, acquire vested rights to receive benefits at or after retirement; in others, continued service until retirement will be a condition precedent to the receipt of benefits. Some plans may provide death benefits to named beneficiaries of participants. Some may provide disability benefits.

To an increasing extent pension plans may provide for variable benefits with the amount of benefit based either on the investment results of a fund or separate account, or upon some general index such as the cost-of-living index. These kinds of benefits stem from efforts to offset the effects of inflation on fixed-dollar benefits provided in the older, traditional plans.

If a pension-benefit plan is funded through the medium of a trust, the trust is entitled to tax exemption under the Internal Revenue Code provided that certain qualifying standards are met. In general, to qualify, the plan which is the subject of the trust must be in writing, must not discriminate in favor of certain classes of employees, must cover certain percentages of employees, must provide for the vesting of benefits upon termination of the plan, and must be used solely to benefit employees or their beneficiaries. If a plan qualifies, contribu-

tions to the trust by the employer will be deductible by the employer, contributions as well as the income and capital gains of the trust will not be taxed to the trust, and beneficiaries will not be taxed until benefits are received, sometimes at the more favorable capital gains rates. By far the greater number of pension-benefit plans do seek and attain qualified status; all of the plans in the Study's samples were qualified.

Beyond the qualification provisions of the tax law, another important part of the legal environment of pension-benefit plans is the Federal Welfare and Pension Plans Disclosure Act. In general, it requires plans covering more than 25 employees to file a descriptive statement with the Department of Labor as well as an annual report supplying information on the financial status and the investments of the plan. The plan's administrator is required to deliver upon request in writing to participants or beneficiaries a copy of the description of the plan and "an adequate summary of the latest annual report." In addition, copies of the description of the plan and the latest annual report are to be made available for inspection by participants or beneficiaries "in the principal office of the plan."

Recent sessions of the Congress have seen a number of bills introduced which would upgrade the quality of the reports required by the Act. A listing of securities by issue showing both current value and aggregate cost would be required under one bill. In addition, some of the bills would establish stricter standards of fiduciary responsibility on the part of persons who administer plans, provide for minimum vesting and funding standards, insurance, and portability of benefits from one employer to another.

During the period of time covered by the Study and up to the passage of the Investment Company Amendments Act of 1970,<sup>1</sup> the Federal securities laws also were of major importance for pension-benefit plans. Amendments contained in the Investment Company Amendments Act have the effect of reducing substantially the impact of the securities laws on these plans.

Although interests of participants in plans meet the definition of "security" under the Securities Act of 1933, prior passage of the Investment Company Amendments Act, the Commission generally did not require plans to register under the Securities Act. If, however, amounts exceeding employer contributions were invested in the securities of the employer, registration was required. This position has, in effect, been codified by the Act. Former section 3(c)(13) of the Investment Company Act of 1940 exempted from that Act trusts funding qualified plans; however, separate accounts maintained by insurance companies funding qualified plans were not similarly exempted. In this area, the Commission required registration under both the Securities Act and the Investment Companies Act except to the extent exemptions were made available by rules 3c-3 and 6e-1 under the Investment Company Act and rule 156 under the Securities Act.

The Investment Company Amendments Act exempts interests or participation in trusts and insurance company separate accounts funding qualified plans from the registration provisions of the Securities Act and the Securities Exchange Act of 1934 and from the registration

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<sup>1</sup> Public Law No. 91-547 (Dec. 14, 1970).

and regulatory provisions of the Investment Company Act with two exceptions. Interests or participation in trusts and separate accounts funding H.R. 10 plans must be registered under the Securities Act, and interests or participations in single trusts or separate accounts funding the plans of a single employer under which an amount in excess of the employer's contribution is allocated to the purchase of securities of the employer must be registered under the Securities Act. For these purposes, securities of affiliated companies are considered securities of the employer, but interests or participations in trusts or separate accounts themselves are excluded from the class of employer's securities.<sup>2</sup>

In addition to the Federal laws and regulations discussed above, pension-benefit plans and their trusts also are subject to State laws in regard to such matters as responsibilities of trustees and investment of assets.

Multiemployer pension-benefit plans generally are subject to all of the above legal provisions and must in addition comply with the provisions of the Taft-Hartley Act regarding joint union-employer boards of trustees for pension and welfare funds. State and local government retirement systems are expressly exempted from the Welfare and Pension Plans Disclosure Act and, except to the extent that nongovernmental agencies enter the picture, from most provisions of the securities acts. For these systems, the major factors in the legal environment are local and State laws establishing and regulating the individual system. Because these systems are already tax exempt as State agencies or instrumentalities, qualification under the Internal Revenue Code is far less important than for private employers' plans, although some state and local systems do qualify.

Both educational endowments and foundations, the other major portfolio types examined in this chapter, generally are tax exempt under the Internal Revenue Code, provided that they do not engage in prohibited transactions as set forth in section 503(c). The Tax Reform Act of 1969, which was not in effect during the period covered by the Study's data collection, imposes a tax on foundations.

One striking aspect of these institutional portfolios is their large size and concentration. In the area of corporate pension-benefit plans, for example, the combined plans in the Study's sample for the firm having the greatest amount of pension-benefit plan assets, contained over \$5.6 billion in total assets or about 5.5 percent of the estimated total assets of all corporate plans. The plans of the nine firms having the largest pension-benefit plan assets had \$24.7 billion, about 24 percent of the assets of all corporate plans. In terms of common stock holdings, the comparable figures were for one firm's plans, the largest in terms of common stock holdings—\$2.4 billion—and for the nine largest firms' plans, \$16 billion.

Similar figures are observed for State and local government retirement systems. The largest system in terms of total assets within the Study's sample held \$3.8 billion, or about 7.8 percent of the assets of all systems, while the largest 11 held \$20.1 billion or about 41 percent of the assets of all systems. The largest system in terms of common

<sup>2</sup> See sec. B.8.c of this chapter for a more complete discussion of the Investment Company Amendments Act.

stock holdings held \$4 billion, about 8.7 percent of all systems' holdings of common stock, and the top 11 held \$2.5 billion, about 55 percent of all systems' holdings.

There was an observed tendency among all the portfolio groups studied, including educational endowments and foundations, to seek diversity of management; in the area of corporate pension-benefit plans, however, bank management predominated. Indeed, four banks managed 37 percent of all noninsured accounts covered by the Study. Self-management and investment adviser management in particular appeared to be increasing. Within the bank managed plans, there was also a tendency to split the plan among more than one manager. This chapter did not develop data on insured plans. However, chapter VI discusses competition by insurance companies for the management of employee-benefit funds.

Those ultimately responsible for the disposition of the assets of portfolios within the groups studied evidenced to some extent an interest in the investment return of their accounts. This was less evident among the State and local government retirement systems as a whole; a substantial number of these systems, however, are severely restricted in terms of their ability to invest in equity securities. Among those systems having substantial equity investments, the same interest in investment results, as evidenced by frequent measurement of the account's return and use of outside agents for evaluation was observed.

The fact that many portfolios within these groups have changed or added new managers within the past five years also is evidence of an interest in and a desire for increased investment return.

With the notable exception of foundations, all portfolio groups observed experienced growth over the period from yearend 1964 to yearend 1969 in terms of both common stock holdings and total assets, with common stock growing faster than total assets for all groups (foundations declined less in terms of common stocks than total assets). These figures reflect growth attributable to both new contributions and investment return. The fastest growing group in terms of common stock was State and local government retirement systems which grew 266.4 percent over the five year period, from \$763.5 million to \$2.797 billion. Next was multiemployer pension-benefit plans with a growth rate of 94.5 percent over the five year period. Corporate plans' stock increased at a 53.6 percent rate, while educational endowments grew at a more modest 27.7 percent over the period. The leader in terms of total asset growth was multiemployer plans with 64.6 percent, followed by State and local government plans with 61.4 percent, corporate plans with 31.2 percent and endowments with 19.4 percent from the yearend 1964 to yearend 1969. Foundations in the sample declined 7.3 percent in total assets and 7.0 percent in the magnitude of their common stock portfolios over the period.

Another consistent pattern across these portfolio groups over the five year observation period was a growth in common stock turnover and activity rates. Corporate plans went from an annual common stock turnover rate of 7.5 percent in 1965 to a rate of 17.2 percent in 1969, with the largest jump (from 8.2 to 13.3 percent) occurring between 1966 and 1967. State and local government retirement systems went from 3.0 percent in 1965 to 11.7 percent in 1969 with the largest

jump (4.2 to 11.7 percent) occurring between 1968 and 1969. Multi-employer plans went from 5.1 percent in 1965 to 8.7 percent in 1968 and jumped to 14.4 percent during 1969. Educational endowments started at 7.1 percent in 1965 and went to 20.2 percent in 1969. The biggest jump for endowments was from 7.8 percent in 1967 to 19.1 percent during 1968. Foundations started at 3.6 percent in 1965 and rose fairly gradually to 5.2 percent during 1969.<sup>3</sup>

All types of portfolios held by far the majority of their common stock assets in New York Stock Exchange listed securities. State and local government systems were the most NYSE-oriented, holding 96.8 percent of their stock in these securities. This should be compared with the ratio of the market value of NYSE-listed equities to the market value of available equities of about 75 percent. Foundations, the group which held the smallest percentage of NYSE-listed stock, 77.3 percent, were still slightly above this rate.

There were few observed differences between portfolio accounts of the same type across different types of managers. For all groups except foundations, investment adviser managed accounts had the highest turnover rates, followed by bank managed and self-managed accounts. Again, except for foundations, investment adviser managed accounts had the lowest percentage of common stock held in NYSE-listed securities. For corporate and multiemployer pension-benefit plans and foundations, investment adviser managed accounts had the highest percentages of total assets in common stock and were a close second in endowment accounts to bank managed. Among State and local government retirement systems, however, self-managed accounts had the highest ratio of common stock to total assets.

Analyses were performed to measure the effect of various account characteristics on the common stock turnover rate for corporate plans. Other factors being equal, accounts having higher fee rates and accounts managed by investment advisers tended to have higher turnover rates, while older accounts and accounts holding greater numbers of issues tended to have lower turnover rates.

Similar analyses were performed to test the effect of various account characteristics on the fee rates charged corporate plans' accounts. These analyses show that the value of assets in the account is the major factor in the fee rate with larger accounts having substantially lower fee rates. Older accounts, accounts holding greater numbers of issues, accounts with higher turnover rates and accounts managed by investment advisers tend to have higher fee rates.

Self-management of portfolio assets was examined in some detail. There were not enough multiemployer plans in the sample to permit meaningful comparisons. Within and among the other portfolio types, however, it is possible to make some comparisons.

The investment departments of all internally managed portfolios reported that the "Fundamental" approach followed by the "Economic Outlook" approach dominated the departments' approach to securities evaluation. Few reported attaching much weight to the "Technical" approach.

When the importance of outside sources of information was in-

<sup>3</sup> These figures all are dollar-weighted averages: in the case of foundations, however, they do not include several large foundations which did no trading.

quired into, again, there was a high degree of consistency across self-managed portfolio groups. All but State and local government systems reported heavy reliance upon financial statements of issuers, with second place going to information received from broker-dealers for commission dollars. Direct contact with issuers was generally last in importance. Foundations' departments, while favoring financial statements of issuers first, preferred direct contact over information from broker-dealers. State and local government systems' departments favored advice from investment advisers over financial statements or other forms of direct information.

Most departments which manage more than one account had some awareness of potential conflicts among accounts when it came to buying or selling programs or when only a limited number of attractive securities are available. Few, however, had well-defined policies regarding how to resolve such potential conflicts.

For the most part internal management was chosen, where it was not required by law or the governing instruments of the portfolio, in the belief that it would be more economical. While there do appear to be consistent differences between self-managed accounts and other accounts, the data reported in this chapter do not permit firm conclusions as to the relative benefit afforded by the choice.

Recent legislative activity in the areas covered by this section of the Study focus their attention on retirement plans. At present these plans are subject to a bewildering array of legal requirements and prohibitions at both the Federal and State levels. Securities laws, tax laws, the Federal disclosure statute, State trust or insurance law, labor law for union-employer administered trusts and the State statutes establishing public systems all apply in varying degrees. Despite the multiplicity of applicable laws and regulations and the costs associated with their compliance and administration, calls for more comprehensive Federal legislation during recent sessions of the Congress evidence concern on the part of their sponsors that existing regulatory schemes lack the consistency needed to insure the further growth and extension of pension coverage on the one hand, while providing acceptable degrees of security regarding anticipated benefits on the other, at acceptable cost to plan sponsors, beneficiaries and the public.

Any attempt to meet these goals must face the problem that efforts to increase the security of benefits will increase costs and may, to some extent, deter employers from establishing retirement plans or increasing the dollar amount of benefits under existing plans. The solution may lie in judgment that security of anticipated benefits outweighs the loss of potential increases in benefit levels that may never be realized by many participants.

The recent call of the President's Task Force on the Aging for the establishment of a Federal Pension Commission was rooted in part in the belief that "the rights of 40 million Americans who are covered by a pension plan are equally as vital as the more substantially protected rights of the 20 million American shareholders." This same theme has been sounded in recent legislative efforts which seek mandatory vesting, fuller funding and reinsurance of pension programs, as well as the provision of information to ultimate beneficiaries that more closely approximates that given to savers through other investment media.

Full exploration of these approaches may be anticipated in the near future.

## APPENDIX A

### SAMPLE SELECTION AND QUESTIONNAIRE DESIGN

This appendix to chapter VIII will detail the methodology of the Study in selecting populations and samples for the studies of corporate and multiemployer pension-benefit plans, state and local government retirement systems, foundations and educational endowments. The basic strategy decided upon by the Study was to cover the greatest number of dollars in assets within each portfolio type while minimizing the number of questionnaire respondents. Essentially this meant that for each portfolio type the initial effort was to establish a population of the largest members of the group. Then, with the exception of foundations, the population was sent a screening (or stage-one) questionnaire. Following tabulation of responses to the screening questionnaire, a more refined sample was selected to receive the data-intensive package of questionnaires (stage-two). Foundation respondents received only a stage-two package, augmented to some extent by questions asked of other respondents at the stage-one level.

#### 1. CORPORATE PENSION-BENEFIT PLANS

In the area of noninsured corporate pension-benefit plans the Study's initial effort was to identify the 100 largest plans in terms of total assets. The process used is best outlined in four stages:

*Stage 1:* From the Department of Labor booklet, "The 100 Largest Retirement Plans 1960-1968," the Study gathered the names of 79 corporations accounting for 93 plans. The other seven plans on the "100 largest" list were multiemployer or union plans. The Department of Labor, Office of Labor-Management and Welfare-Pension Reports, supplied the Study with the value of the 1968 assets of each of these 93 plans, \$34.8 billion. The range of assets of these 93 plans was from \$119 million to \$2,543 million. Sixty-seven companies had one plan, ten companies had two plans each and two had three a piece.

*Stage 2:* From a comparison of the "100 Largest Retirement Plans—1966" and the 1968 list referred to in stage 1, a list of six companies each having a pension-benefit plan in the top 100 plans in 1966, but not in 1968, was also gathered. The smallest plan in terms of assets on the 1966 "100 largest" list had \$92.5 million in 1967 assets. The Study had 1967 asset values prior to mailing the screening questionnaire, Form 1-8, for only two of these plans and these amounted to \$196.3 million. The low cut off according to assets for this list of six plans in 1967, however, was \$92.5 million.

*Stage 3:* The Department of Labor also supplied the Study with a list of five companies each having a large pension-benefit plan not on the 1966 or 1968 "100 largest" lists. The range of 1967 asset value among these plans was from \$95.4 to \$106.2 million and the total of 1967 assets for these five plans was \$503.7 million.

*Stage 4:* In an effort to include all large plans, the Study compiled a list of 16 companies believed to have large pension plans from the 1969 Fortune 500. The following criteria were used: (1) Any company not selected in stages 1, 2 or 3, but in the top 50 of Fortune's 500 largest industrials (Fortune, May 15, 1969, page 170). This added 14 companies to the list. (2) Any company having over 100,000 employees not already included in the sample from Fortune's list of the largest industrials, commercial banks, life insurance companies, retailing companies, transportation companies and utilities. This added two companies to the list.

Table VIII-A-1 summarizes the results of this preliminary process.

TABLE VIII-A-1.—SUMMARY OF 1-8 SAMPLE BEFORE MAILING

	Companies	Plans	Known assets (billions)
Stage 1.....	79	93	\$34.8
Stage 2.....	6	6	.2
Stage 3.....	5	5	.5
Stage 4.....	16	16	-----
Final sample.....	106	120	35.5

According to the Department of Labor's "The 100 Largest Retirement Plans 1960-1968" booklet as of July 1, 1969, there were approximately 33,400 active plans providing retirement benefits which had filed initial reports with the Department. Approximately one-half of these cover 100 or more participants. According to the U.S. Securities and Exchange Commission Statistical Series, Release No. 2406, December 12, 1969, the book value of assets of private non-insured pension funds was \$80.3 billion. This figure covers noninsured pension funds of corporations, nonprofit institutions and multiemployer and union groups.

When taking these two facts into account, the Study's sampling strategy seems to have been optimum for its purposes since it was assured of covering at least 44 percent of private noninsured pension assets while only sending 106 questionnaires, a very small sample considering all private pension funds.

In the effort to identify both large plans and separately managed accounts of these plans, respondents to Form I-8 were given the following instructions. Those selected in stage 1 were asked to "Complete a copy of Form I-8, Tables 1, 2, and 3 for each plan listed below and for any other [of] your pension-benefit plans which had at least \$100 million assets (market value) as of June 30, 1969, or nearest date ending your fiscal year." The listed plan(s) was the one appearing among the 100 largest plans in the booklet. For those companies selected in stages 2, 3 and 4 the following instructions were given. "Complete a copy of Form I-8, Tables 1, 2 and 3 for your largest pension-benefit plan in terms of accumulated assets or pension reserves."

"Separately managed fund" was defined to mean "any fund which either is managed by a separate person or group or which, although managed by one manager, is separate because of distinct investment objectives or different sources of contributions." "Manager" of a fund was defined to mean "the investment firm, bank, insurance company or other investment adviser, or the person or committee (if managed internally) which makes day-to-day decisions on the purchase or sale of securities, *even though* some other group or person may have ultimate responsibility for the plan of which the fund is a part. "For example, if an investment adviser makes only portfolio recommendations and these recommendations are seldom if ever overruled by a group with ultimate authority, the investment adviser *is* the manager for our purposes. Last, depending on the structure of a particular plan, the "manager" might also be the administrator of the plan or the corporate trustee of the plan or might be some other persons or group."

As described above in the text of the chapter,<sup>121</sup> Form I-8 was completed for 135 plans and 371 accounts. Table VIII-A-2 shows the breakdown of these accounts by assets and manager type.

Following the results of the I-8 questionnaire, the Study decided that the next stage of questionnaires would be divided into two parts—an "A" part designed to collect information on plans and a "B" part designed to gather information about accounts of plans. It was also decided to branch the questionnaires effort into two portions—one for self-managed accounts and plans having self-managed accounts and the other for accounts managed externally and plans having such externally managed accounts. This division was due to the fact that the investment departments of self-managed plans would be asked different and additional questions. By far the largest number of accounts responded for on I-8 were in the category of externally managed and a further sampling procedure was devised to minimize the number of respondents.

Form I-32, Part A, was designed for plans having self-managed accounts. Of the 27 self-administered accounts from Form I-8 the Study mailed the I-32 package (Form I-32, Parts A and B, Forms I-3, I-21, I-22, I-24, I-25, and I-26) to 22 of them. Of the five excluded accounts, two were from Canadian companies and three were profit-sharing or thrift plans having all their assets either in short-term government bonds or the company's stocks. These latter accounts were able to be eliminated from our final sample only because of explanations given voluntarily in the I-8 response. The final sample did include similar profit-sharing plans whose responses were analyzed and presented in the unmanaged profit-sharing account category in the text.<sup>122</sup>

<sup>121</sup> See sec. C.1.

<sup>122</sup> See for example, Table VIII-4, sec. B, above.

Table VIII-A-2  
Description of Form I-8 Separately Managed Account Structure

Asset Categories ( <u>\$000,000</u> )	<u>Bank Accounts</u>	<u>I/A Accounts</u>	<u>Insured. Accounts</u>	<u>Self Administered</u>	<u>Total</u>
> 0 ≤ 25	67	22	25	3	117
> 25 ≤ 50	35	7	9	2	53
> 51 ≤ 100	57	2	10	1	70
> 101 ≤ 200	52	3	10	6	71
> 201 ≤ 500	34	1	1	9	45
> 501 -	8	0	1	6	15
Total	253	35	56	27	371

Part B of Form I-32 and the other forms were the same as those sent to externally managed accounts.

Form I-33, Part A, was sent to plans having externally managed accounts, and Form I-33, Part 8, was to be completed for the accounts. It will be recalled from Table VIII-A-2 that Form I-8 produced a universe of 253 bank managed, 34 investment adviser managed and 56 insured external accounts. The final samples to receive the forms were selected on the following bases.

Because the Form I-33 package of questionnaires (Form I-33, Parts A and B, Forms I-3, I-21, I-22, I-24, I-25 and I-26) requested data not only for 1969, but also for past periods (as far back as 1964) in order to look at trends and growth over time, the Study eliminated all externally managed accounts less than two years old. Twenty-five bank managed, 16 investment adviser managed and six insured accounts were eliminated for this reason.<sup>123</sup>

Next it was decided that insured accounts would not be sampled at all for the Form I-33 package. Insured pension-benefit accounts were being covered in a separate group of questionnaires, the I-51 package, and I-8 had not been designed to get data on insured accounts.

Of the 18 investment adviser managed accounts surviving the age criteria, 16 were selected. One of the two not chosen had no common stock and the other was of a Canadian company. The investment adviser managed portion of the sample then consists of all such accounts (from Form I-8) of American companies in existence for at least two years having at least \$1 of common stock.

There remained to be sampled bank accounts. Two hundred twenty-five such accounts had survived the age-criterion cut-off and the Study's strategy was to select about 100 accounts with a high concentration of large accounts.

The following procedure was used to select a stratified random sample which would satisfy the sampling strategy:

Step 1: Break the 225 accounts into seven categories according to assets.

The intervals are presented in Column (1), Table VIII-A-3.

Step 2: The following statistics were calculated for each interval.

Column (2) Number of accounts (n) in the interval

Column (3) Standard deviation ( $\sigma$ ) of the account assets in the interval

Column (4)  $n\sigma$  for each interval

Column (5)  $\frac{n\sigma}{\sum n\sigma}$  for each interval

Using the column (5) percentages and 100 as the desired sample size, the number of accounts to be selected from each interval were calculated. However, because of the small number of accounts in the "500,000" interval the final sample would have contained only 87 accounts. The Study then used 150 as the total number of accounts desired and the configuration in column (7) was the result, 120 accounts, randomly selected from each interval. After selecting the accounts randomly three were not mailed the I-33 package. Two of these three were of Canadian companies and one was left out in error. The three accounts dropped from the sample all were from the interval ">0≤25,000."

The final I-33 sample then consisted of:

Bank accounts .....	117
Investment adviser accounts.....	16
Total .....	<u>133</u>

<sup>123</sup> See Table VIII-A-4 for a summary description of the excluded bank managed accounts.

Table VIII A-3

## Sample Selection Calculations for Bank-Managed Sample

(1) Interval (\$ Mil. Assets)	(2) n # of Accounts	(3) $\sigma$ Std. Dev.	(4) $n\sigma$ N X Std. Dev.	(5) $n\sigma/\sum n\sigma$ Pct.	(6) # Accounts Called For	(7) # Accounts Selected
$>0 \leq 25,000$	52	5858	304639	6.5	10	10
$>25,000 \leq 50,000$	33	6404	211348	4.5	7	7
$>50,000 \leq 100,000$	48	13169	632136	13.4	20	20
$>100,000 \leq 200,000$	50	27532	1376612	29.2	44	44
$>200,000 \leq 300,000$	22	27317	600968	12.7	19	19
$>300,000 \leq 500,000$	12	50624	607490	12.9	19	12
$>500,000$	8	123610	988876	20.9	31	8
Total	225			100.1	150	120

Table VIII-A-4 further describes the final sample of bank managed accounts. The strata correspond exactly with the size grouping of Table VIII-A-3 with stratum 6 consisting of all accounts having over \$300 million in total assets. Row 5 of the Table presents the adjustment factors used in analysis of returns supplied by the sample. In essence row 5.1 gives the adjustment factors used whenever numbers of accounts were being analyzed, while row 5.2 gives the adjustment factors used whenever assets were being analyzed. Use of these factors was necessary in summing results across the strata in order to remove biases introduced by the fact that, for example, one account in Stratum 1 represents 6.5 accounts in the I-8 population while one account in Stratum 5 represents only 1.16 other accounts.

Table VIII-A-4

PENSION-BENEFIT BANK ACCOUNT SUMMARY

Form I-8 Used Exclusively (Dollars in Thousands)

	STRATUM 1	STRATUM 2	STRATUM 3	STRATUM 4	STRATUM 5	STRATUM 6	TOTALS
1. Totals From I-8							
1.1 accounts	67	35	57	52	22	20	253
1.2 all assets	638,287	1,272,206	4,003,894	7,652,972	5,152,293	9,435,273	28,154,925
1.3 common stock	438,900	910,159	2,960,346	5,326,724	3,096,521	6,252,530	18,985,180
2. Accounts in Existence Less Than Two Years							
2.1 accounts	15	2	9	2	0	0	28
2.2 all assets	117,674	78,044	684,366	302,357	0	0	1,182,441
2.3 common stock	84,528	60,403	515,406	209,129	0	0	869,466
3. Universe for Sampling							
3.1 accounts	52	33	48	50	22	20	225
3.2 all assets	520,613	1,194,162	3,319,528	7,350,615	5,152,293	9,435,273	26,972,484
3.3 common stock	354,372	849,756	2,444,940	5,117,595	3,096,521	6,252,530	18,115,714
4. Sample							
4.1 accounts	8	7	19	44	19	20	117
4.2 all assets	83,419	262,788	1,197,366	6,419,036	4,509,394	9,435,273	21,907,276
4.3 common stock	66,328	211,580	910,818	4,387,815	2,819,166	6,252,530	14,648,237
5. Blow-Up Factors							
5.1 $3.1 \div 4.1$	6.50	4.71	2.53	1.14	1.16	1.00	
5.2 $3.2 \div 4.2$	6.24	4.54	2.77	1.15	1.14	1.00	

## 2. MULTIEMPLOYER PENSION-BENEFIT PLANS

In the area of multiemployer pension-benefit plans, the initial effort to identify a universe of large plans overlapped to some extent the effort to identify large corporate pension-benefit plans. As mentioned above, the Study's first source of names of plans was the U.S. Department of Labor booklet "The 100 Largest Retirement Plans 1960-1968," Appendix B. There were seven plans in this list which were administered by multiemployer or joint union-employer boards of trustees. The range of 1967 assets (according to the Department of Labor) for these seven plans was from \$117 to \$548 million. The total of these assets in 1967 was \$1,587 million.

To complete the search for large plans, the Study used the "Multiemployer Union Pension Funds Directory" on page 52 of the June 1968 *Institutional Investor*. All groups having \$40 million and above in 1967 assets and not already included in the sample of seven were added, resulting in a list of multiemployer and union groups having assets from \$40 to \$350 million. The 16 from the Institutional Investor listing had assets in 1967 of \$1,343 million. The final sample then became 23 multiemployer and union groups having 1967 assets of \$2,930 million.

The instructions for Form I-10, the first stage questionnaire, sought to gather information on all large plans of these 23 groups. Each respondent was asked to "complete a copy of Form I-10, Tables One, Two and Three for each plan listed below by Department of Labor WP file number and for any other of your pension-benefit plans which had at least \$50 million in assets (market value) as of June 30, 1969, or nearest valuation date." The responses produced information on only the 23 plans identified prior to mailing. These 23 plans produced the following configuration of separately managed accounts, based on I-10 responses.

TABLE VIII-A-5.—ACCOUNT STRUCTURE MULTIEMPLOYER PLANS

	Bank accounts	I/A accounts	Insurance	Self administered	Total
Total number of accounts.....	16	11	1	11	39
Total assets.....	\$622,916	\$435,787	\$722,000	\$1,742,176	\$3,522,883
Total common stock.....	\$321,393	\$249,314	\$206,500	\$152,354	\$929,561

Following the pattern used with corporate plans, a sample of internally managed plans and accounts was selected to receive second stage questionnaire I-36, and a separate sample of externally managed accounts to receive questionnaire I-37. These accounts also received the other questionnaires in the stage-two package (except I-22). For these samples, the Study's definitions of "manager" and "account" were essentially the same as for the corporate samples. The specific criterion used to select accounts to receive Forms I-36 and I-37 was that an account, in order to be selected, must have reported on Form I-10 at least \$10 million in common stock and convertible securities. No exclusion based on age of account was made. The one insurance account was not selected because separately invested insurance funds were being studied using different questionnaires. A description of the sample appears below in Table VIII-A-6.

TABLE VIII-A-6.—DESCRIPTION OF FORMS I-36 AND I-37 SAMPLE

	Bank managed	I/A managed	Self-managed	Total
1.1 Number of accounts from I-10.....	16	11	11	38
1.2 Total assets from I-10.....	622,916	435,787	1,742,176	2,800,879
1.3 Common stock from I-10.....	321,393	249,314	152,354	723,061
2.1 Number of accounts sampled.....	10	8	5	23
2.2 Total assets sampled.....	523,574	427,052	712,046	1,662,672
2.3 Common stock sampled.....	316,535	240,579	152,354	709,468
Ratios (percent):				
2.1/1.1.....	62	73	46	60
2.2/1.2.....	84	98	41	59
2.3/1.3.....	98	96	100	98

After the Study had mailed the questionnaires, one respondent indicated that its account was bank-managed rather than self-managed as it had indicated on Form I-10. This account reported assets of \$96.448 million and common stock and convertible securities of \$12.547 million on Form I-10. This change would produce the adjusted reports given in Table VIII-A-7.

TABLE VIII-A-7.—DESCRIPTION OF FORM I-36 AND I-37 SAMPLE

[Dollars in thousands; adjusted]

	Bank managed	I/A managed	Self- managed	Total
1.1 Number of accounts from I-10.....	17	11	10	38
1.2 Total assets from I-10.....	\$719,364	\$435,787	\$1,645,728	\$2,800,879
1.3 Common stock from I-10.....	333,940	249,314	139,807	723,061
2.1 Number of accounts sampled.....	11	8	4	23
2.2 Total assets sampled.....	\$620,022	\$427,052	\$615,598	\$1,662,672
2.3 Common stock sampled.....	329,082	240,314	139,807	709,468
Ratio (percent):				
2.1/1.1.....	65	73	40	60
2.2/1.2.....	86	98	37	59
2.3/1.3.....	98	96	100	98

### 3. STATE AND LOCAL GOVERNMENT RETIREMENT SYSTEMS

As was the case with corporate and multiemployer pension-benefit plans, the Study adopted a two-stage process of data collection in studying public funds. The first stage, or screening questionnaire, in this process was Form I-9. Form I-9 was designed to identify separately invested accounts for further sampling purposes, identify pools of individual system's funds comingled for investment purposes and obtain answers to other preliminary questions. In picking a sample of this group of institutions the Study followed the guidelines of the corporate plan sample, that of covering a maximum amount of assets while sending a minimum number of questionnaires.

The Commerce Department already was using a sample in preparing its Quarterly Report—"Holdings of Selected Public-Employee Retirement Systems"—which fit the Study's guidelines. The sample is described in the June 30, 1969 Quarterly Report.

"The 100 systems canvassed in this survey hold approximately 90 percent of the assets of all retirement systems operated by State and local governments throughout the United States, although more than 2,100 such systems were counted in the 1967 Census of Governments. The proportionate share of non-governmental securities (corporate bonds and stocks, mortgages, etc.) held by the largest funds is especially high."

The Commerce Department supplied the Study with a list of 99 systems entitled "Public-Employee Retirement Systems Canvassed in Quarterly Survey of Holdings." Using the U.S. Department of Commerce, Bureau of the Census, 1967 Census of Government Volume 6, *Employee-Retirement Systems of State and Local Governments*, the Study assigned a value to the 1967 assets of each of the 99 systems. The range of 1967 assets was from \$56 million to \$2,758 million. These figures come from Table 8—Statistics for Individual Employee-Retirement Systems having 200 members or more: 1966-1967. There were three systems which had assets of greater than \$56 million in Table 8, but which were not included in the list of 99 from the Commerce Department. These were added to the sample and they had assets of \$77, \$315 and \$380 million respectively. The total assets in 1967 of all 102 systems in the I-9 sample was \$35,422 million.

As noted above, Form I-9 sought also to identify pools of funds. The instructions stated, "Form I-9 is to be completed in accordance with these instructions. Focus is primarily on the retirement system listed below; however, if any part of the assets of that system are "combined in a pool" (defined below), we also seek information about the pool." The response to the question about pools on Form I-9 was disappointing. The Study had included the question after reading and hearing of such "pooling" in Ohio, Minnesota, California and New York City. Only a very few systems responded other than "Not Applicable." All the systems in the localities mentioned above responded "Not Applicable."

Out of the 102 systems which received Form I-9, 95 responded, reporting 105 separately invested accounts. Table VIII-A-8 details the asset and stock holdings of these accounts by manager type.

TABLE VIII-A-8.—Form I-9 ACCOUNT STRUCTURE AND ASSETS

[In millions of dollars]

	Number	Assets	Common stock
Bank-managed .....	14	\$8,689	\$980
I-A-managed .....	18	5,363	587
Insured .....	1	131	127
Self-administered .....	72	23,788	2,674
Total .....	105	37,971	4,294

The seven systems which did not respond to Form I-9 were estimated (using *Employer-Retirement Systems of State and Local Governments*) to have 1967 assets of \$1,650 million. It should be noted that these instances of nonresponse were not paralleled by any other respondent portfolio type covered by the studies in this Chapter.

Again, as in the case for corporate pension-benefit plan accounts, the sampling strategy for the second stage of the state and local retirement system study was to select a relatively small number of accounts while covering a large percentage of the common stock reported on the screening questionnaire. Again, separate samples of internally and externally managed accounts were selected to receive Forms I-34 and I-35 respectively. In the case of state and local retirement systems, the Study not only wanted to select large accounts in terms of common stock and convertible securities but also sought to select any accounts which seemed to be progressive. A progressive account for these purposes was considered to be any account having a relatively large percentage of total assets in common stock. For state and local retirement systems this percentage is low compared to corporate pension plan accounts or even educational endowment accounts.

The selection criteria for the I-34, I-35 sample were (1) an account must have over \$100 million in common stock and convertible securities or (2) a ratio of 10 percent of common stock and convertible securities to total account assets. It should be noted here for perspective that on June 30, 1968 major public-employee retirement systems as reported on the Department of Commerce Publication, "Holdings of Selected Public-Employee Retirement Systems June 30, 1969," held 6.6 percent of their total assets in corporate stocks. On June 30, 1969 these same systems held 9.5 percent in corporate stocks. The Study's 95 respondents to Form I-9 held an average 11 percent in common stock and convertible securities.

Table VIII-A-9 on page 1302 describes the sample for Forms I-34 (self-administered) and I-35 (externally-managed) selected using the above criteria. Of the 49 accounts sampled, only two met the first criteria only (that is, held over \$100 million in common stock and convertible securities but had a proportion of stock and convertibles to total assets of less than 10 percent). Thirty-seven accounts met the second criteria only and ten accounts met both criteria.

The table on page 1303 also describes the breakdown of responses to Forms I-34 and I-35. Since the Study did not receive a response from each account sampled the true sample drawn from the I-9 respondents is the group of accounts responding to Forms I-34 and I-35, not the group-sent forms.

#### 4. EDUCATIONAL ENDOWMENTS

As with pension plans and retirement systems, a two-stage approach to data-collection was utilized in the study of educational endowments. The screening questionnaire, Form I-11, was used to identify separately managed accounts of endowments, and the stage-two questionnaires, I-42 for self-administered accounts and I-43 for externally managed accounts, were used to collect more intensive information.

The job of identifying the large endowments for the stage-one sample was difficult because of a lack of recent and complete reporting of educational endowments. Using the Office of Education booklet, "College and University Endowment, Status and Management," 1965, the Boston Fund booklets, "Study of College and University Endowment Funds," 1967 and 1968 editions and various news articles, the Study created a list of 46 colleges and universities. These institutions were estimated to have \$8.97 billion in total assets as of June 30, 1967. The range was estimated to be from \$51 to \$1,152 million.

Using an additional source, "The University Endowment Directory" from the September 1967 *Institutional Investor*, the Study produced a second list to supplement the first. The "Directory" listed the top 81 educational institutions (excluding secondary schools) ranked according to 1966 endowment assets. The top 55 of these had assets of over \$24 million and all those in this segment (and not included in the original 46) were placed on the second list. Of the original list of 46, 40 were in the "Directory's" top 55. Four of the missing six do have large endowments and illustrate the incompleteness of recent endowment statistics. The other two schools which were on the first list, but not on the "Directory" list were reported incorrectly in the Office of Education booklet. One institution was added to the second list even though the "Directory" reported its assets at under \$24 million because in the judgment of a staff member it was thought to have more than \$25 million. The second list was estimated to have \$582 million in assets in 1966 and a range from \$24.6 to \$95.7 million dollars.

In an interview with Ralph Nelson, author of *Investment Policies of Foundations*, secondary schools were suggested as possible additions to our endowment sample. Mr. Nelson believed the top secondary school endowments (in terms of assets) were as large as some colleges already in our sample. The Council for Financial Aid to Education, Inc. supplied the Study with a list of 12 secondary schools believed to contain the top ten secondary school endowments. No asset figures for this third list were available prior to mailing.

The final screening questionnaire sample consisted of the 74 institutions on the three lists. The Study had estimated assets for 62 of these for 1966 and 1967 prior to mailing valued at \$9.55 billion. According to a New York Stock Exchange research report, "Nonprofit Institutions, Their Role as Institutional Investor," September 1968, total 1967 college and university endowment fund assets were \$12.25 billion. The sample of 62 (for which asset values were available) was estimated to contain 78 percent of all college and university endowment assets in 1967.

Responses to the screening questionnaire, one of the first drafted by the Study, were somewhat disappointing as many respondents did not seem to understand what was called for. To a large extent this was cleared up through telephone calls and, where necessary, resubmittals.

The sample strategy for the stage-two questionnaires again was to choose the largest accounts from the population in terms of market value of common stock and convertible securities. The reason for using common stock and convertible securities as the criteria for selecting a sample was that the Study is more interested in large portfolios of stock and using just total assets as the criterion would not guarantee the selection of accounts with such large stock portfolios.

After scanning the range and density of the common stock values of the accounts described on Form I-11 it was decided a cut-off of \$22 million in the market value of common stock and convertible securities would be used for selecting the sample. The reason for the cut off at \$22 million was that this would allow about 60 out of the 147 accounts to be chosen while a cut off at a lower level would add significant numbers of accounts without increasing appreciably the total value of common stock sampled.

Selecting all accounts having \$22 million or more in common stock and convertible securities resulted in the selection of 58 accounts. It should be noted that five accounts of three institutions which met the criteria were not selected. One account from one institution and three accounts of another institution were not selected because their Form I-11 returns did not get corrected in the edit procedure in time for the second stage selections. However, these two respondents' I-11 returns have been corrected and all tables in the Chapter reflect their correct filing. One other account was not selected because as indicated on the respondent's Form I-11 it consisted of 27 separate funds and would entail great difficulty in extracting the data required. Also this account would have been one of the smallest in the sample, having only \$24 million in common stock and convertible securities.

Using the specifications indicated above, a sample of 58 accounts was chosen consisting of 19 bank accounts, 17 investment adviser accounts and 22 self-administered accounts. Table VIII-A-10 below describes the relationship between the sample and the population. Again the strategy is shown in the total where only 39 percent of the accounts were chosen but which covered 84 percent of the assets and 89 percent of the common stock and convertible securities.

Table VIII-A-9  
Form 1-34, 35 Sample Description  
(\$ Thousands)

	BANK MANAGED	I/A MANAGED	SELF MANAGED	TOTAL
1.1 # of accounts of I-9 Respondents	14	18	72	104
1.2 Total assets of I-9 Respondents	8,688,795	5,363,015	23,788,421	37,840,231
1.3 Common stock of I-9 Respondents	907,617	587,370	2,674,353	4,169,340
2.1 # accounts sampled	9	13	27	49
2.2 Total assets sampled	5,669,760	4,378,983	12,644,298	22,693,041
2.3 Total common sampled	892,213	510,718	2,357,482	3,760,413
3.1 # accounts responding to I-21	9	11	16	36
3.2 Total assets of accounts Responding to I-21	5,669,760	4,004,940	7,866,858	17,541,558
3.3 Total Common Stock of accounts responding to I-21	892,213	450,046	1,671,418	3,013,677
Ratios:	%	%	%	%
2.1/1.1	64	72	38	47
2.2/1.2	65	82	53	60
2.3/1.3	98	87	88	90
3.1/1.1	64	61	22	35
3.2/1.2	65	75	33	46
3.3/1.2	98	77	62	72
3.1/2.1	100	85	59	74
3.2/2.2	100	92	62	77
3.3/2.3	100	88	71	80

TABLE VIII-A-10  
Description of I-42, I-43 Sample  
(\$ thousand)

	<u>BANK ACCOUNTS</u>	<u>I/A ACCOUNTS</u>	<u>SELF MANAGED ACCOUNTS</u>	<u>TOTALS</u>
1.1 Number of Accounts from I-11	65	41	41	147
1.2 Total Assets from I-11	1,659,832	3,794,380	3,130,469	8,584,681
1.3 Total C. Stock & Conv. from I-11	1,136,429	2,496,359	2,114,246	5,747,834
2.1 Number of Accounts Sampled	19	17	22	58
2.2 Total Assets of Sample	1,206,633	3,415,267	2,907,766	7,529,666
2.3 Total C. Stock & Conv. in Sample	833,423	2,282,348	1,995,265	5,111,036
Ratios:				
2.1/1.1	29%	41%	54%	39%
2.2/1.2	73%	90%	93%	84%
2.3/1.3	73%	91%	94%	89%

As pointed out above, many of the original 74 respondents to Form I-11 had difficulty understanding the instructions and a good deal of follow-up was necessary to correct the obvious errors. Two kinds of errors which could not be found simply by reading the responses to Form I-11 did become apparent after receiving a response to Form I-42 or I-43. One of these errors was the reporting of the wrong manager for an account and the other was the reporting of the wrong breakdown of separately invested funds.

Through telephone calls from respondents and responses to Forms I-42 and I-43 the Study was able to correct the errors for the 58 sampled accounts. However, the other 89 accounts were not "edited" since they were not included in the second-stage sample and thus remain "raw." To the extent possible classifications based on I-11 returns were corrected and all tabulations in the Chapter reflect this post-sample-selection editing.

#### 5. FOUNDATIONS

The sampling strategy used to select foundations for the Study was also to choose a relatively small sample containing the largest institutions in terms of assets. According to the Foundation Center some 22,000 foundations were in existence at the end of 1968 and they controlled \$20.5 billion in assets. The Institutional Investor Study sent questionnaires to the 29 foundations which were believed to be the largest.

In an article entitled "Let's Not Fence in the Foundations" in the June, 1969 Fortune it was stated that, "twenty-six foundations have assets of over \$100 million each." Fifteen of these have assets of over \$200 million and were listed on page 164 of the June, 1969 Fortune. These 15 had total assets of \$9.25 billion in 1968.

Fortune supplied the Study with the names and asset values of the 11 other foundations which they believed had over \$100 million in assets. These 11 foundations had 1968 assets of \$1.48 billion. Two of these 11 foundations (The Old Dominion Foundation and the Avalon Foundation) merged into one foundation (The Andrew Mellon Foundation) after the Fortune article was written. From the Fortune source then the Study had a list of 25.

Another source was the 1967 Foundation Directory, Edition 3, which was prepared by the Foundation Library Center. It lists the asset values of 6,803 corporations and trusts which fit their definition of a foundation and which possess assets of \$200,000 or distribute annually \$10,000 or more in grants or for programs. For the purposes of this directory a foundation is defined as "a non-governmental, nonprofit organization having a principal fund of its own, managed by its own trustees or directors, and established to maintain or aid social, educational, charitable, religious, or other activities serving the common welfare." Both charitable trusts and corporations are included. The Directory excludes "foundations" which make a general appeal to the public for funds; which act as trade associations for industrial or other special groups; which are restricted by charter solely to aiding one or several named institutions; or which function as endowments set up for special purposes within colleges, churches or other organizations and are governed by the trustees of the parent institution. One foundation was in the Directory which was not on the Fortune list but had over \$100 million assets and it was added to our sample. This one foundation had 1967 assets of \$134 million.

The final source used was the Subcommittee Chairman's Report to Subcommittee No. 1, Select Committee on Small Business, House of Representatives, 91st Congress entitled "Tax-Exempt Foundations and Charitable Trusts: Their Impact on Our Economy." The report obtained asset values from 647 foundations and three of these had more than \$100 million in assets in 1967 and were not as yet on the Study's list of 26. These were included and had total 1967 assets of \$375 million. The addition of these three foundations completed the sample of all foundations having more than \$100 million in total assets in 1967 or 1968, 29 foundations which held an estimated 55 percent of all foundation assets.

**CHAPTER IX**  
**DISTRIBUTION AND CHARACTERISTICS OF HOLDINGS**  
**IN INSTITUTIONAL PORTFOLIOS**  
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## CHAPTER IX

### DISTRIBUTION AND CHARACTERISTICS OF HOLDINGS IN INSTITUTIONAL PORTFOLIOS

#### A. INTRODUCTION

An understanding of the market and price impacts of institutional trading is necessarily dependent upon an analysis of institutional portfolio fund allocations. Various prior studies have attempted to ascertain some of the characteristics of institutional portfolio compositions.<sup>1</sup> Most prior analyses, however, have been limited in scope, and relatively little detailed data on the composition of institutional common stock holdings have been collected. There was, however, prior agreement that institutional investors exhibited a high degree of portfolio concentration in relatively few securities.<sup>2</sup>

This chapter studies the allocation of equity portfolio funds of institutional investors and explores systematic differences in allocation between the institutional sector and the individual sector. In addition, differences in the portfolio preferences of the several types of institutions are explored.

The examination focuses first on the concentration of funds within institutional portfolios, the extent of this concentration and the specific stocks in which significant amounts of funds are placed. Next, various hypotheses are put forward to explain portfolio concentration and are tested.

One hypothesis is that institutions prefer to hold the stock of large firms—that is, companies with the largest market value. This may be thought to be true for a number of reasons—because of liquidity considerations, because institutions may be able to take larger dollar positions in such companies without becoming larger proportionate shareowners or because larger companies have more stable earnings and hence are less risky than smaller companies.

A second hypothesis is that institutions hold issues in which there has been substantial price appreciation, and that those institutions subject to capital gains taxes are reluctant to sell these securities. These institutions may be considered “locked in” to substantial portions of these holdings.

The characteristics of common stocks in institutional portfolios form the second point of examination. Common stock portfolios of different types of institutions may be distinguished by certain characteristics of the common stock held in their portfolios. For example, as

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<sup>1</sup> See, for example, Securities and Exchange Commission, *Public Policy Implications of Investment Company Growth*, H.R. Rep. No. 2337, 89th Cong., 2d Sess. (1966); New York Stock Exchange, *Institutional Shareownership: A Report on Financial Institutions in the Stock Market* (1964); Wharton School of Finance and Commerce, *A Study of Mutual Funds* (1962).

<sup>2</sup> *Public Policy Implications*, n. 1 above, at 278 n. 4, 290, 291; *Report on Institutional Shareowners*, n. 1 above, at 33.

bank trust departments generally are thought to be more conservative than the managers of mutual funds, the composite portfolios managed by bank trust departments may have different characteristics than those managed for open-end registered investment companies. Among the characteristics studied are specific measures of the corporation issuing the common stocks, its growth, size, dividend payment, volatility of stock price, industry, and exchange listing. Several of the characteristics are combined to give a profile of portfolios for each type of institution.

The characteristics of the common stock holdings by institutions used to distinguish different investment preferences between institutional types also may be used to determine differences between the investment preferences of institutions and those of the general public. An important facet of this analysis is the determination of the characteristics preferred by institutions as distinguished from those preferred by the public.

The final portion of the chapter examines the portfolios of individual accounts of institutions to determine whether these portfolios reflect primarily the investment objectives of accounts of their general type—for example, employee-benefit plans, foundations and endowments—without regard to the type of manager or reflect instead preferences common to different accounts managed by the same type of institution—for example, investment advisers, banks and insurance companies.

## B. DESCRIPTION OF SAMPLES

### 1. Common Stocks

Two distinct stock groupings are used for the analyses described in this chapter. The first, List A, is a list of approximately 800 stocks<sup>3</sup> sent to over 200 institutions whose portfolio composition and trading patterns were analyzed by the Study. The list includes 562 stocks which are listed on either the New York or American stock exchanges and 231 stocks traded nationally over-the-counter.<sup>4</sup> This sample contains the 27 largest New York Stock Exchange-listed stocks, in terms of market value;<sup>5</sup> 198 randomly selected New York Stock Exchange stocks (not including the 27 largest); 100 randomly selected American Stock Exchange stocks; 150 randomly selected over-the-counter stocks; and 318 stocks specifically selected for a variety of reasons: because they were involved in transfers of control, were subjects of secondary distributions, had been included in samples used during previous studies, had unusually large price changes or for some other specific reason.<sup>6</sup>

<sup>3</sup> See ch. X, app. A.

<sup>4</sup> The information concerning List A stocks used in the analyses described in this chapter is as of June 30, 1968. By September 30, 1969, however, several companies had altered their prior status as to exchange listing. Thus, for example, not all of the companies included in the group of the 27 largest New York Stock Exchange stocks as of June 30, 1968, were still included in that category as of September 30, 1969. Similarly, some securities listed on one exchange on June 30, 1968, were listed on a different exchange as of September 30, 1969.

<sup>5</sup> The sample of the largest NYSE stocks originally contained the largest 31 stocks listed on that exchange which comprised 40 percent of the market value of all stocks on that exchange. Four stocks were eliminated from the sample because they were either primarily foreign held or substantially held by a company already included in the sample. Of the remaining 27 stocks, two had been drawn in the random NYSE sample of 200 stocks, but are treated for most purposes as belonging to the sample of the 27 largest NYSE stocks. These 27 stocks accounted for 35 percent of the market value of all New York Stock Exchange-listed common stocks on September 30, 1969.

<sup>6</sup> See ch. X, app. A, below, for a detailed description of the common stock samples and their composition.

The second stock group used, List Z, is a subsample composed of 475 of the stocks contained in List A. List Z itself is composed of four subsamples: the 27 largest NYSE firms in terms of market value, the random NYSE sample, the random AMEX sample and the random over-the-counter sample. The over-the-counter sample was drawn from the firms contained in Standard and Poor's COMPUSTAT service, which is composed mainly of industrial companies. This means that over-the-counter stocks of financial institutions and transportation and utility companies are underrepresented. To the extent that institutions invest in such over-the-counter stocks, their representation in those portions of industrial portfolios studied here is understated.

## 2. Institutions

The portfolios of over 200 of the largest financial institutions were examined in connection with the analyses described below. The institutional portfolios examined include those of the 50 largest bank trust departments, 71 investment advisers managing, among others, the portfolios of the largest registered investment company complexes, the 26 largest life insurance companies, the 25 largest property and liability insurance company groups and 41 self-administered portfolios belonging to the largest corporate employee-benefit plans, educational endowments and foundations.

The institutions surveyed represent the largest institutions in each of their classes. On a combined basis, they managed total assets aggregating \$465.1 billion as of September 30, 1969. The bank trust departments surveyed accounted for 69.5 percent of the total assets managed by all bank trust departments.<sup>7</sup> Similar figures for the assets managed by surveyed institutional types are: investment advisers, 60.8 percent;<sup>8</sup> life insurance companies, 70.5 percent;<sup>9</sup> property and liability insurance companies, 64.0 percent.<sup>10</sup>

The institutions surveyed manage common stock assets aggregating \$222.2 billion as of September 30, 1969. Common stock assets of individual institutional types covered are as follows: Surveyed bank trust departments manage 72.2 percent of the common stock assets managed by all bank trust departments;<sup>11</sup> investment advisers, 64.2 percent;<sup>12</sup> life insurance companies, 82.4 percent;<sup>13</sup> property and liability insurance companies, 71.2 percent.<sup>14</sup> The bank trust departments surveyed manage more than half the common stock administered by all institutions surveyed by the Study—\$130.8 billion of common stock out of a total of \$222.2 billion (Table IX-1).

Common stock accounts for approximately 70 percent of total assets for all institutional types, except life and property-liability insurance companies (Table IX-1) which, due to their insurance function, maintain a much lower common stock ratio. Despite this difference in the average ratio of common stock to total assets, the proportion of the

<sup>7</sup> Board of Governors of the Federal Reserve System, *Trust Assets of Insured Commercial Banks* (1970); data furnished the Study by surveyed institutions on Form I-3.

<sup>8</sup> Data furnished the Study by surveyed institutions on Forms I-3 and I-5.

<sup>9</sup> Institute of Life Insurance, *Life Insurance Fact Book* (1970); data furnished the Study by surveyed institutions on Form I-3.

<sup>10</sup> A. M. Best Co., *Best's Insurance Reports, Property-Liability* (1970); data furnished the Study by surveyed institutions on Form I-3.

<sup>11</sup> See n. 7, above.

<sup>12</sup> See n. 8, above.

<sup>13</sup> See n. 9, above.

<sup>14</sup> See n. 10, above.

common stock portfolios represented by the List A sample is relatively uniform for all institutional types. The List Z sample coverage is only about 10 percent less than the List A coverage for each institutional type.

### C. DISTRIBUTIONS OF STOCKHOLDINGS IN INSTITUTIONAL EQUITY PORTFOLIOS

While institutional portfolios contain many different equity securities, most of the market value of the equity portion of such portfolios is concentrated in a relatively small number of stocks.

This section measures the extent of portfolio concentration in several ways. First, it examines the concentration of stocks within portfolios. Second, it examines whether institutional investors concentrate most of their funds in the same securities. Finally, several hypotheses to explain the degree of concentration observed are presented and tested.

#### 1. Degree of Concentration

Institutional portfolios tend to be concentrated in a small number of stocks. Tables IX-2 through IX-8 summarize some aspects of portfolio concentration within the List A sample.

Thus, for example, bank trust departments reported an average of almost 244 List A stocks in the portfolios they each manage (Tables IX-2, IX-9).<sup>15</sup> The smallest number of List A stocks held was 62 and the largest 391 (Table IX-2). On the average, bank trust departments reported that their largest single holding of a List A stock constituted nearly 11 percent of their entire common stock holdings and nearly 20 percent of their total List A stock holdings (Tables IX-2, IX-9). Individually, the bank trust departments reflected wide variation in these figures. The largest single holding of a List A stock ranged from a low of 1.8 percent of the entire common stock holdings of one bank trust department to a high of 44 percent for another. Similarly, the largest single List A holding ranged from a low of 8.3 percent of one bank trust department's total List A holdings to a high of 74.4 percent for another. The shares of only eight List A companies accounted for nearly 50 percent of the dollar value of the entire portfolio of List A stocks managed by the bank trust departments studied (Tables IX-2, IX-9).

Similarly, the portfolios managed by surveyed investment advisers also exhibited a relatively high degree of concentration, although not as strong as that exhibited by bank trust departments. Surveyed investment advisers reported an average of slightly less than 100 List A stocks in the portfolios they each manage, or less than one-half the comparable number for bank trust departments (Tables IX-3, IX-9). A wider variation in individual holdings exists for the surveyed portfolios managed by investment advisers than for bank-administered funds. List A shareholdings contained in portfolios managed by

<sup>15</sup> The Study limited its inquiry on portfolio concentration to the 800 List A stocks described in sec. B.1, above. Many of these institutions manage portfolios which include other securities not contained in the List A sample. The List A stocks comprise, on the average, nearly one-half of the value of portfolio stocks managed by the surveyed institutions.

these institutions ranged from a low of seven to a high of 436 (Table IX-3). On average, however, the largest single holding of a List A stock accounted for nearly 6 percent of total stock holdings managed by investment advisers and nearly 14 percent of List A stocks held in their portfolios (Tables IX-3, IX-9). An average of less than 10 List A stocks accounted for 50 percent of the dollar value of List A stocks in the portfolios managed by the surveyed investment advisers (Tables IX-3, IX-9).

Analysis of the portfolios managed by the 25 largest property and liability insurance groups disclosed comparable degrees of concentration. Their portfolios were smaller, containing an average of about 48 List A stocks (Tables IX-4, IX-9). On the average, the largest single List A holding accounted for 8 percent of total stock holdings and nearly 17 percent of total List A stock holdings in the portfolios of these insurance groups. Of the 48 List A stocks contained, on the average, in each insurance group portfolio, approximately eight were required to account for 50 percent of the dollar value of List A holdings.

Self-administered corporate employee-benefit plans exhibit even greater concentration. While these institutions contain an average of 39 List A portfolio stocks, one-third of the plans surveyed manage portfolios which are completely or substantially dominated by a single List A stock (Table IX-6). The most concentrated of these portfolios, of course, are profit-sharing plans. The dominant security in each case is the stock of the sponsoring corporation. Self-administered foundations also are heavily concentrated in a single List A security (Table IX-7), although not to the same extent as corporate employee-benefit plans. This concentration also results from the nature of the foundations surveyed. In most instances, the individual or a family establishing a foundation endows it primarily with a single security.

Comparable figures for the portfolios managed by the 26 largest life insurance companies, the nine largest self-administered foundations and the 20 largest self-administered educational endowments are set forth in Tables IX-5, IX-7, and IX-8, respectively. The average number of List A stocks in portfolios managed by these institutions ranged from nearly 28 for self-administered foundations to slightly more than 43 for life insurance company managed portfolios. Of the three institutional groups surveyed, the nine largest self-administered foundations exhibited the greatest degree of concentration. For the portfolios they manage, the largest List A holding accounted for an average of 21.2 percent of all portfolio stock holdings. An average of less than three List A stocks was needed to account for 50 percent of the dollar value of List A stocks in the portfolios managed by self-administered foundations. The life insurance companies and self-administered educational endowments exhibited far less concentration; the largest single List A holding in each portfolio these institutions manage averaged 9.5 and 5.4 percent of total portfolio stock holdings for educational endowments and life insurance companies, respectively.

Because concentration is measured here as the number of stocks needed to account for 50 percent of a portfolio's market value, it could be expected that this measure of concentration would be positively related both to the number of stocks in the portfolio and to its total

market value. An examination of the data through regression analysis indicates, however, that the number of List A stocks needed to account for 50 percent of a portfolio's total value does not appear to be related systematically to either portfolio characteristic (for portfolios containing 30 or more List A stocks). Neither is there any statistically significant relationship between the number of List A stocks in a portfolio and the number of List A stocks needed to account for 50 percent of its List A portfolio value. On the average, nine stocks account for half the List A value.<sup>16</sup> There is, however, a positive relationship between the total number of stocks in a portfolio and its market value.

A similar analysis was used to determine the relationship between the minimum number of stocks needed to account for 50 percent of the value of List A portfolios and the total value of common stock portfolio holdings.<sup>17</sup> Again, no evidence of a statistically significant relationship is found.

While a few stocks dominate the equity assets of institutional portfolios, it is unlikely that the total number of stocks in a portfolio is the same for large as for low market value portfolios. This hypothesis also was tested using regression analysis.<sup>18</sup> As expected, the Study found that the total number of stocks in a portfolio increases as the value of the portfolio increases, with an average institutional portfolio size of \$616 million spread over 121 stocks, increasing by one stock for each additional \$16 million of portfolio assets.

For portfolios in which List A stocks contribute a relatively small fraction of the market value of the entire common stock portfolio, conclusions regarding concentration are much more sensitive to the distribution of the portion of the portfolio which has not been analyzed. Indeed, a substantial lack of concentration in the unanalyzed portion of the portfolio could invalidate the findings reported above. To make sure that this was not in fact the case, interviews were conducted with the managers of all included portfolios where less than 30 percent of the common stock is represented by the List A sample. These interviews revealed that those portfolios generally were heavily concentrated in a small number of non-List A stocks. There is no reason to believe that, on average, the portion of these portfolios excluded from the Study is any less concentrated than the portion studied.

Consequently, considerable evidence exists that while the total number of stocks in a portfolio increases with the market value of the portfolio, the minimum number of stocks needed to constitute 50 percent of the market value is remarkably independent of portfolio size

<sup>16</sup> The dependent variable is the smallest number of stocks needed to account for 50 percent of the value of the List A portfolios; the independent variable in this simple two variable equation is the total number of stocks in the List A portfolio. The resulting equation is  $Y=9.2+0.0003X$ , and the coefficient of determination, adjusted  $R^2$ , is 0.0006. The T-value of the regression coefficient is 0.10.

For more information about the test used, see J. Johnston, *Econometric Methods* (1963).  
<sup>17</sup> Once again, the dependent variable Y is the smallest number of stocks needed to account for 50 percent of the List A portfolio value. In this case, the independent variable, X, is the value of the entire List A common stock portfolio (in millions of dollars). The resulting equation is:  $Y=9.2+0.00005X$  with the coefficient of determination equal to 0.00017. The T-value of the regression coefficient is 0.17.

<sup>18</sup> The dependent variable, Y, is the number of stocks in institutional portfolios appearing in List A. The independent variable, X, is the market value of these stocks expressed in millions of dollars. The resulting regression equation is  $Y=81.2+0.064X$  with the coefficient of determination equal to 0.418. The T value of the regression coefficient is 11.3.

as measured either by the total number of stocks or by market value. There are a number of possible explanations, and available evidence is not sufficient to settle on one with any confidence. The evidence is, however, compatible with a seemingly reasonable general view of how portfolios are managed. It may be that the institutions under study have a small number of "favorite" stocks and that a substantial portion of these portfolios, regardless of size, is placed in these stocks. While it is difficult to substantiate that this management policy is in fact the correct explanation of the findings, the evidence presented in section C.3, below, on the character of the stocks in which portfolios are concentrated, lends some further support to this view.

## 2. Popularity of Portfolio Stocks

The preceding section has provided evidence regarding the concentration of funds in a limited number of stocks within institutional portfolios. This section identifies those stocks in which these funds are concentrated and determines whether different institutions are concentrated in the same stocks. After identifying these absolutely "popular" stocks, a hypothesis is developed to explain the inclusion of a stock in portfolios using the market value of the individual corporation's outstanding common stock as an explanatory variable.

One measure of the popularity of a given stock in institutional portfolios is the number of times it appears in these portfolios. This would not indicate, however, how significant in size the investment is. A more useful measure of "popularity" is one that indicates how often each portfolio invests a significant portion of its funds in a stock. To construct this type of measure, each portfolio's List A common stock holdings were ranked in descending order of their market values (in the portfolio). The smallest number of (the larger) holdings required to account for at least 50 percent of the portfolio's value then was counted, and the number summed across the portfolios studied to arrive at the number of "significant" positions available in the top 50 percent of the portfolios. The frequency with which a given stock filled one of these available positions then constitutes a measure of its "popularity."

Table IX-10 presents this count for each stock in List A that appears in the top 50 percent of the portfolios studied. The Study found that significant portions of all institutional portfolios are invested in a relatively small number of stocks of the same large, well-known companies.

The extent of the portfolio concentration is shown in Table IX-11. This table shows the proportion of the positions in the top half of each type of portfolio accounted for by the stocks in Table IX-10. There are 1,968 positions in the top 50 percent for all 213 institutions. At least half of these positions are filled by 12 stocks, while all 1,968 positions are filled by 232 of the total of nearly 800 stocks in the List A sample.

Similar tabulations are presented for each institutional type—the 50 largest bank trust departments, the 26 largest life insurance companies, the 25 largest property and liability insurance groups, the 71 investment advisers managing the largest registered investment companies, and the 41 largest self-administered institutional portfolios. Between 6 and 24 stocks account for half the positions available in each institutional type. They tend to be the same stocks for

each institution (Tables IX-10 and IX-11). The popularity concentration is greatest among bank trust departments and least among large registered investment company complexes.

### 3. Institutional Portfolio Concentration and the Market Value of Common Stocks

Establishing that institutions hold significant portions of their portfolios in the same small number of stocks does not necessarily mean that institutions are overly concentrated in these stocks. In fact, one would expect stocks of companies such as International Business Machines Corporation and American Telephone & Telegraph Company, which have the largest market values of all United States corporations, to appear both with the greatest frequency and with the greatest concentration in any portfolio, institutional or individual.

The combined portfolios of institutions and individuals must hold the shares of all companies in proportion to their market values. That is, all outstanding shares must be held by someone, and the market value of the largest firm must represent the highest proportion of the value of all common stocks, the second largest, the next highest, etc. It is not necessary, however, for institutional and individual sectors both to hold particular securities in proportion to their market values and, indeed, they do not.

The proportion of the holdings of a particular common stock in the aggregate of all portfolios (institutional and individual) is the ratio of the value of that stock to the total market value of all stocks, or any subset such as List Z. This is the "market ratio." The proportion of the holdings of a particular stock in a particular portfolio is the ratio of the market value of the holding of that stock to the market value of the entire portfolio. This is the "portfolio ratio."

If institutions hold particular stocks in exact proportion to their market values, the market ratio and the portfolio ratio would be equal. By dividing the portfolio ratio by the market ratio, it is possible to derive a third ratio, the "concentration index," which indicates whether institutions hold particular stocks more or less than in proportion to their market values. Should the concentration index be equal to one, institutional holdings would be exactly proportional to their market values. Should the concentration index be greater than one, institutional holdings would be more than proportional to the stock's market value and noninstitutional holdings, by definition, would be less. Conversely, should the concentration index be less than one, institutional holdings would be less and individual (or noninstitutional) holdings would be greater than proportional to the stock's market value.

The concentration index and the market and portfolio ratios for the holdings of List Z stocks for the aggregate of all institutions covered by the Study are set forth in Table IX-12. The ratios are presented in decreasing order of market values for the stocks. The data again demonstrate that institutions generally prefer the securities of larger companies to smaller firms (Table IX-12). This hypothesis is here tested using regression analysis for the random List Z sample for each type of institution and all institutions together.<sup>19</sup>

<sup>19</sup> The random sample of common stocks in List Z was used to keep the regression results compatible with those for other regression results reported.

A semi-logarithmic regression specifically tests the relationship between the concentration index for each stock and its market value.<sup>20</sup> The results show that the larger the firm, the more likely it is to have a higher concentration index in institutional portfolios. The general public, therefore, must hold less than a proportionate share of the larger firms. This finding is also true for each type of institution analyzed separately.

Not all large firms are held in disproportionately large amounts by institutional investors. The securities of nine (including the second largest, American Telephone & Telegraph Co.) of the 35 List Z firms having a market value of \$1 billion or more on September 30, 1969, were held in what appear to be disproportionately small amounts by institutional investors (that is, have a concentration index of .90 or less).

A question arises from these results: why are stocks with large market values generally held in proportions greater than their market values? No single reason has been found. One reason may be liquidity considerations. To a portfolio manager concerned with the liquidity of his portfolio holding, two (and possibly more) quite distinct strategies are available: (1) hold a large number of different securities, thereby limiting the dollar commitment to any single security or (2) concentrate holdings in stocks having substantial market values and trading volumes.

Despite the fact that either of these strategies may attain a suitable degree of portfolio liquidity, there are reasons to expect managers to prefer concentration in smaller numbers of large market value stocks. Most of the institutions considered here maintain research organizations which are charged with, among other things, continuously

<sup>20</sup> It was found that 43 percent of the variation in the concentration index is explained by the variation in market value, and that the extent of this relationship is greater than that which could be expected from chance alone, at standard 5 percent significance levels. The results of the regression analyses for all institutions as a group and for each type of institution are as follows:

TABLE IX-a.—Results of regression test of hypothesis that institutions hold disproportionately larger amounts of the stock of large market value firms than can be explained by the simple proportions of their market values

[Concentration index = A + B (log market value)]

Institution type	Intercept	Regression coefficient <sup>a</sup>	Coefficient of determination (R <sup>2</sup> ) <sup>a b</sup>
Largest bank trust departments .....	-1. 22515	0. 33361 ° (14. 8)	0. 37873 ° (219. 9)
Investment advisers with largest registered investment company complexes.....	-1. 32004	0. 42631 ° (7. 9)	0. 14476 ° (61. 8)
Largest property and liability insurance companies.....	-1. 42218	0. 38371 ° (5. 6)	0. 07781 ° (31. 3)
Largest life insurance companies.....	-1. 76435	0. 47822 ° (7. 6)	0. 13765 ° (58. 3)
Largest self-administered corporate employee-benefit plans.....	-1. 55340	0. 36023 ° (7. 1)	0. 12054 ° (50. 2)
Largest self-administered educational endowments.....	-1. 93180	0. 44309 ° (4. 1)	0. 04250 ° (16. 9)
Largest self-administered foundations.....	-1. 21679	0. 34215 ° (4. 4)	0. 04836 ° (19. 2)
All institutions.....	-1. 32810	0. 36430 ° (16. 4)	0. 42700 ° (268. 5)

<sup>a</sup> Numbers in parentheses represent the T-value of the regression coefficient and the F-ratio of the coefficient of determination, respectively. The last line of the table shows the result of the regression analysis for all surveyed institutions. The coefficient of determination shows that 42.7 percent of the variation in the concentration index is explained by variation in market value.

<sup>b</sup> Adjusted for degrees of freedom.

° Significant at 95 percent confidence level.

reviewing securities held in portfolios. It is reasonable to expect the cost of surveillance to increase with the number of securities held, although probably less than proportionately. Also, the administrative cost and burden on the portfolio manager are likely to rise with the number of securities contained in a portfolio. Thus, one might expect cost considerations to lead institutions to seek portfolio liquidity through a strategy of concentration in a few large market value stocks. The evidence in section C.2, which indicates substantial portfolio concentration, and that in the present section, on the type of securities in which the concentration takes place, support this hypothesis.

Similarly, the widespread view that larger companies have achieved greater stability in their earnings also may account for observed institutional preferences for the stocks of these companies.

Some portfolio managers also have indicated that they feel "locked in" to securities whose prices have increased considerably, because of a reluctance on the part of their clients or directors to expose themselves to sizeable, taxable capital gains. It was not possible to confirm this "locked in" hypothesis empirically with the data available.<sup>21</sup>

In addition, there are several institutional factors which may reinforce tendencies for institutions to concentrate their holdings in relatively few, large market value stocks. Some corporations have large individual or family holdings which appear as personal trusts managed by banks and investment advisers. Also, there is a tendency for corporate profit sharing plans, particularly self-administered plans, to invest predominantly in the stock of the sponsoring corporation.

An additional analysis of the effect of market value on institutional holdings was performed by determining the relationship between the proportion of institutional funds invested in a common stock and the market value of the stock. This was accomplished through regression analysis by determining how well variations in institutional holdings are explained by variations in market value.<sup>22</sup>

<sup>21</sup> An attempt to test the "locked in" hypothesis using price changes for only a seven-year period yielded inconclusive results.

<sup>22</sup> The results of these tests are as follows :

TABLE IX-b.—*Relationship between proportion of funds invested in a stock and the market value of that stock*

[Proportion of funds invested in stock = A + B (market value of stock)]

Institution type	Intercept	Market value regression coefficient <sup>a</sup>	Coefficient of determination (R <sup>2</sup> ) <sup>a, b</sup>
Largest bank trust departments.....	-0.02240	0.00038 ° (41.0)	0.82374 ° (1,678.8)
Investment advisers with largest registered investment company complexes.....	0.02141	0.00032 ° (38.8)	0.80553 ° (1,488.0)
Largest property and liability insurance companies.....	-0.03642	0.00040 ° (37.8)	0.79891 ° (1,427.3)
Largest life insurance companies.....	0.03784	0.00030 ° (44.0)	0.84351 ° (1,936.1)
Largest self-administered corporate employee-benefit plans.....	0.05032	0.00029 ° (7.2)	0.12401 ° (51.8)
Largest self-administered educational endowments.....	0.12630	0.00019 ° (4.1)	0.04286 ° (17.1)
Largest self-administered foundations.....	-0.00024	0.00035 ° (26.9)	0.66834 ° (724.4)
All institutions.....	-0.00338	0.00036 ° (43.3)	0.83903 ° (1,872.3)

<sup>a</sup> Numbers in parentheses represent the T-value of the regression coefficient and F-ratio of the coefficient of determination.

<sup>b</sup> Adjusted for degrees of freedom.

° Significant at the 95 percent confidence level.

It was found that 84 percent of variation in the proportion of the aggregate funds of all institutions invested in a common stock was explained by the market value of the stock. Forty-three percent of variation in the concentration index can be explained similarly, on the basis of market value alone.<sup>23</sup>

In addition to market value and the institutional factors cited, there may be some intrinsic factors which cause institutions to favor one company over another. Here it will be convenient to think of the equity market as divided into two sectors, portfolios managed by institutions and portfolios managed by individuals. A number of these factors are explored in section D, below, and the differences among institutions and between institutions and individuals are examined.

#### 4. Some Implications of Portfolio Concentration

In section C.3, above, it was found that institutions systematically hold a greater proportion of stocks with large market value than do individuals, and conversely, individuals hold a greater proportion of stocks with small market value than do institutions. Some reasons for this phenomenon have been advanced earlier; others may be gleaned from Table IX-13, which presents in order of decreasing market value (as of September 30, 1969) the percentage of List Z stocks listed on either the New York or American stock exchanges held by the surveyed institutions. Table IX-13 also presents institutional shareholdings of List Z stocks as a percentage of 1968 trading volume for these stocks.<sup>24</sup>

The Study found the institutions surveyed managed, on the average, more than 36 percent of the outstanding shares of the 27 largest companies listed on the New York Stock Exchange, more than 20 percent of the outstanding shares of the other List Z NYSE-listed shares and slightly more than 6.2 percent of AMEX-listed stocks in the sample. For the 27 largest NYSE stocks, aggregate institutional management ranged from a low of 10.2 percent to a high of 54.2 percent.

Institutions held extremely large percentages of the 27 largest stocks. In every instance the institutions surveyed held a higher percentage of those companies' stocks than were publicly traded on the New York Stock Exchange during 1968. Thus, institutional holdings ranged from a low of 102 percent of 1968 New York Stock Exchange trading volume to a high of more than 2,000 percent of that volume. Table IX-13 also presents the turnover of NYSE and AMEX List Z stocks. The Study found that stocks with relatively low market values turned over a greater proportion of their shares during a year than did stocks with relatively large market values.

One implication of these observations is that the relatively large market value of the stocks in which institutions concentrate their holdings may overstate somewhat the liquidity of these portfolio positions. Liquidity of a portfolio position depends on, among other factors, both market value and turnover. The relatively smaller turnover of the large market value stocks probably reduces somewhat the

<sup>23</sup> See n. 20, above.

<sup>24</sup> The ratios are presented for NYSE and AMEX stock for which data were available.

actual liquidity of these positions and consequently that of the average institutional portfolio.

A definitive judgment concerning the overall liquidity of institutional portfolios, of course, cannot be made on the basis of such limited data. It should be noted, however, that the liquidity of a portfolio position depends in part on the degree to which all holders of the same stock tend to be motivated by the same expectations and, consequently, act in parallel. As several portfolio managers stated, "if everyone tries to run for the door, nobody gets through."<sup>25</sup>

#### D. THE CHARACTERISTICS OF COMMON STOCKS IN INSTITUTIONAL PORTFOLIOS

This section examines certain intrinsic characteristics of common stocks and their relationship to institutional portfolios. The preceding section demonstrated that institutions systematically held disproportionately large amounts of stocks having large market values, although there were exceptions. This section continues the examination of institutional holdings by analyzing intrinsic characteristics of the various companies whose securities comprise the portfolios studied.

For each of the intrinsic characteristics selected a test is performed to determine whether the distribution of that characteristic among institutional portfolios of various types differs systematically from its distribution in the market as a whole. Finally, the intrinsic characteristics were combined to determine whether different types of institutions have different preferences for combinations of these characteristics.

##### 1. Characteristics Examined

Securities analysis and the theory of portfolio selection suggest several characteristics other than price to be examined in determining the relative desirability of a particular common stock holding. Nine such characteristics have been chosen here, to typify a portfolio:

- a. Exchange listing
- b. Industry
- c. Nondiversifiable investment risk
- d. Debt-equity ratio
- e. Dividend payout ratio
- f. Return on book value
- g. Growth of firm
- h. Size of firm
- i. Earnings-price ratio

The choice of these characteristics was determined by a trade-off between the theoretical appropriateness of the measure on the one hand and the availability of data on the other. The List Z random sample of securities contains 475 common stocks. Standard and Poor's computerized historical data file (COMPUSTAT) supplies some information about approximately 400 of these stocks; the remaining data was

<sup>25</sup> Evidence on the degree of parallelism in institutional trading and on the price impacts of institutional position changes is presented in ch. X, below. Evidence on the price impacts of block trades is presented in ch. XI.D, below.

collected from Moody's Industrial,<sup>26</sup> Financial,<sup>27</sup> and Transportation manuals,<sup>28</sup> Standard and Poor's Corporation Records<sup>29</sup> and the Investment Statistics Laboratory.<sup>30</sup>

*a. Exchange listing*

Each stock for which this analysis was performed was reported or listed on either the New York or American Stock Exchange, or traded nationally over-the-counter on September 30, 1969, the date for which institutional holdings data was collected. The Study's sample of 475 stocks did not include any security listed solely on a regional exchange.<sup>31</sup>

*b. Industry*

Each stock was assigned a four digit Standard Industrial Classification Code, allowing for narrow industry definitions when necessary.

*c. Nondiversifiable investment risk*

Any returns obtained from investment in a particular security can be divided into two components. The first can be considered that portion of the return which is related to general market movements. The second is a nonmarket-related component—that is, the portion of the return which can be attributed to factors unique to a particular security. The first, market related component, is called "nondiversifiable investment risk."<sup>32</sup>

Through portfolio diversification it is possible to eliminate large portions of variations in returns due to factors that are unique to individual securities in the portfolio. Since virtually all securities exhibit some movement in accord with general market movements, however, it is difficult to eliminate completely market-related variations from common stock portfolios. A portfolio whose nondiversifiable investment risk equals one, displays the same degree of volatility as the market does; a portfolio with nondiversifiable investment risk of less than one is less volatile than the market. The nondiversifiable investment risk of a portfolio at one moment in time can be calculated as a weighted average of the nondiversifiable investment risk of the individual stocks it contains, where each stock is weighted by its relative market value in the portfolio.<sup>33</sup>

*d. Debt-equity ratio*

The debt-equity ratio is a measure of the financial leverage of the company. It is sometimes considered a measure of risk. The ratio is computed by dividing the sum of long term debt and preferred stock in the capital structure of a company by the net worth of that company.

<sup>26</sup> Moody's Investors Service, Inc., *Moody's Industrial Manual* (1962-1969).

<sup>27</sup> Moody's Investors Service, Inc., *Moody's Transportation Manual* (1962-1969).

<sup>28</sup> Moody's Investors Service, Inc., *Moody's Bank and Finance Manual* (1962-1969).

<sup>29</sup> Standard and Poor's Corporation, *Corporation Records—Standard Corporation Descriptions* (1962-1969).

<sup>30</sup> Investment Statistics Laboratory, *ISL Quarterly Historical Stock Tape* (1962-1969).

<sup>31</sup> Of course, a number of the 475 stocks in the sample are also dually listed on a regional exchange.

<sup>32</sup> See ch. IV.F. and the appendix to that chapter, above, for a full discussion of relative volatility, or nondiversifiable investment risk.

<sup>33</sup> See chs. IV and V, above, for further descriptions of this portfolio characteristic and examples of its application.

*e. Dividend payout ratio*

The dividend payout ratio is the proportion of income paid in cash to the common stockholder. It was computed by dividing total dividends paid on the common stock between 1964 and 1968 by total net income available to common shareholders during the period.

*f. Return on book value*

Return on book value is a measure of the earnings of the company as a percent of the book value of shareholders' equity (net worth). The return was computed by dividing total per share net income applicable to common stock between 1964 and 1968 by the sum of the per share book value (net worth) at each year end during the period.

*g. Growth of sales*

Each firm's rate of growth was measured by growth in sales rather than earnings because of statistical difficulties resulting from occasionally small, or even negative earnings figures. The growth was measured by computing the seven year compound rate of growth in net sales per share between 1962 and 1968.<sup>34</sup>

*h. Size of firm*

Size of firm was measured in two ways, by market value and by the book value of total (gross) assets. Market value was computed by multiplying price per share on September 30, 1969, by the number of shares outstanding on that date. Gross assets were those shown on the firm's balance sheet at the end of its 1968 fiscal year.

*i. Earnings-price ratio*

The earnings-price ratio is the ratio of net income per share applicable to common shareholders in 1968 and the 1968 closing price of the stock. It was used instead of its reciprocal, the more common price-earnings ratio—again, because of statistical difficulties resulting from abnormally low earnings (the price-earnings ratio becomes very large when per share earnings fall to zero).

## 2. Relationship between Concentration Index and Intrinsic Characteristics of Common Stocks

This section extends the examination of institutional portfolio concentration, as measured by the concentration index developed in section C.3, above. In addition to market value and price change, five intrinsic characteristics of the firms are related to their concentration indices. The additional characteristics examined were:

1. Debt-equity ratio
2. Dividend payout ratio
3. Growth of sales
4. Return on book value
5. Nondiversifiable investment risk

Nondiversifiable investment risk was examined in a separate analysis, as the measure is not available for over-the-counter firms, and conclusions drawn from the relationship apply only to the portion of the portfolio invested in listed companies.

<sup>34</sup> The rate of growth was measured by the following equation:  $\text{Net sales}(t) = A e^{Gt}$  where  $G$  is the annual compound growth rate.

A series of simple regression analyses were performed with each of the first four characteristics as the independent variable, and concentration index as the dependent variable.<sup>35</sup>

Two of the characteristics, growth of sales and return on book value, displayed a statistically significant positive relationship with the concentration index—that is, the higher the value of either characteristic, the higher the concentration of institutional portfolios tended to be in that stock. The other two characteristics, dividend payout ratio and debt-equity ratio showed a relationship not significantly different from zero.

Multiple regression analysis was performed using all four characteristics plus market value and price change.<sup>36</sup> The results showed that only two characteristics associated with a stock, market value and return on book value, had consistently positive, and statistically significant, relationships with the concentration index.

The inclusion of these four characteristics—debt-equity ratio, dividend payout ratio, growth of sales and return on book value—in

<sup>35</sup> The equation is  $Y=A+BX$ , where the dependent variable,  $Y$ , is the concentration index and the independent variable,  $X$ , is in turn, debt-equity ratio, dividend payout ratio, growth of sales and return on book value. The resulting regression equations and adjusted coefficient of determination,  $R^2$ , are as follows

(1) $Y=0.47268+0.00561$ (debt-equity ratio) (0.3)	Adjusted $R^2=0.00288$ (0.06)
(2) $Y=0.47852-0.00375$ (dividend payout ratio) (-0.2)	Adjusted $R^2=0.00290$ (0.06)
(3) $Y=0.37516+0.84524$ (growth of sales) (3.3)	Adjusted $R^2=0.02920$ (10.8)
(4) $Y=0.42943+0.40234$ (return on book value) (3.4)	Adjusted $R^2=0.03090$ (11.4)

Note: The numbers in parentheses are the  $T$ -value of the regression coefficient and  $F$ -ratio of the coefficient of determination.

<sup>36</sup> The following regression equations were used:

$$Y=A+B_1X_1+B_2X_2+B_3X_3+B_4X_4+B_5X_5+B_6X_6$$

and

$$Y=A+B_1X_1+B_2X_2+B_3X_3+B_4X_4+B_5X_5+B_7X_7$$

where:

$Y$  = Concentration index  
 $X_1$  = Debt-equity ratio  
 $X_2$  = Dividend payout ratio  
 $X_3$  = Growth of sales per share  
 $X_4$  = Return on book value  
 $X_5$  = Logarithm of market value (\$ million)  
 $X_6$  = Price change from 1962-1968  
 $X_7$  = Price change from 1962-1969

The results are:

$$(1) Y = -1.41422 - 0.01480X_1 + 0.00694X_2 + 0.31144X_3 + 0.22898X_4 + 0.36352X_5 + 0.19172X_6$$

(-0.8)      (0.6)      (1.4)      (2.3)      (15.0)      (1.4)

and adjusted  $R^2=0.44961$   
(45.4)

$$(2) Y = -1.38714 - 0.01310X_1 + 0.00539X_2 + 0.33411X_3 + 0.23302X_4 + 0.35907X_5 + 0.25303X_6$$

(-0.7)      (0.5)      (1.6)      (2.4)      (15.3)      (1.7)

and adjusted  $R^2=0.45136$   
(45.7)

Note: The numbers in parentheses are the  $T$ -value of the regression coefficient and the  $F$ -ratio of the coefficient of determination.

addition to market value, increased the explained variation in the concentration index by a relatively small amount.<sup>37</sup>

The analysis was extended further to include nondiversifiable investment risk. This analysis, however, only included data for listed firms. The simple regression relationship between the concentration index as dependent variable and nondiversifiable investment risk as the explanatory variable was obtained.<sup>38</sup> The results showed that nondiversifiable investment risk was positively and significantly related to variations in the concentration index.

Multiple regression analysis was performed using all five characteristics plus market value and price change.<sup>39</sup> The results showed only one characteristic, market value, provided a statistically significant explanation of variations in the concentration index.

While the analysis including nondiversifiable investment risk was restricted to listed companies for which all other intrinsic characteristics are available (242 of the 475 companies in the List Z sample), the results were not substantially different from the analysis which did not include nondiversifiable investment risk, using both listed and unlisted companies.

Thus, the characteristics examined in this section did not substantially improve the ability to explain the magnitude or extent of institutional holding beyond that provided by large market value alone.

<sup>37</sup> The coefficient of determination associated with market value alone was 0.43 and the coefficient of determination associated with the six characteristics was 0.45. It should be noted that the use of all six characteristics reduced the number of companies with available data to 337.

<sup>38</sup> The dependent variable,  $Y$ , is the concentration index. The independent variable,  $X_1$ , is nondiversifiable investment risk. The resulting regression equation is  $Y = 0.38036 + 0.1949X_1$  with the coefficient of determination equal to 0.03. The  $T$ -value of the regression coefficient is 3.1 and the  $F$ -ratio is 9.3.

<sup>39</sup> The following regression equations were used:

$$Y = A + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + B_7X_7$$

and

$$Y = A + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + B_8X_8$$

where:

- $Y$  = Concentration index
- $X_1$  = Debt-equity ratio
- $X_2$  = Dividend payout ratio
- $X_3$  = Growth of sales per share
- $X_4$  = Return on book value
- $X_5$  = Logarithm of market value (\$ million)
- $X_6$  = Nondiversifiable investment risk
- $X_7$  = Price change from 1962-1968
- $X_8$  = Price change from 1962-1969

the results were:

$$(1) Y = -1.60500 - 0.01008X_1 + 0.01013X_2 + 0.28278X_3 + 0.13449X_4 + 0.39228X_5 + 0.07873X_6 + 0.14973X_7$$

(-0.4)            (0.8)            (1.1)            (0.8)            (12.2)            (1.5)            (0.9)

and  $R^2 = 0.44502$   
(28.6)

$$(2) Y = -1.58618 - 0.00793X_1 + 0.00882X_2 + 0.30055X_3 + 0.13151X_4 + 0.38895X_5 + 0.07955X_6 + 0.21002X_8$$

(-0.3)            (0.7)            (1.2)            (0.7)            (12.7)            (1.6)            (1.2)

with  $R^2 = 0.44663$   
(28.8)

### 3. Common Stock Characteristics in Institutional Portfolios

#### *a. Tabular distribution of common stock characteristics in institutional portfolios*

The distribution of the above characteristics in the common stock portfolios of each institutional type is presented in Tables IX-14 through IX-22. Each table was computed by determining the dollars invested by an institutional type in common stocks in each category and dividing that amount by the total funds invested by the institutional type.

The Study's random sample, List Z, contained only a portion of the stocks that may be held in an equity portfolio. Accordingly, sampling techniques were used to reconstruct the characteristics of the entire portfolio. This random sample was actually composed of four subsamples, each covering a different group of stocks, and each stock in a subsample was given a weight in inverse proportion to its probability of being included in the sample.

The weights were constructed as follows: One subsample was composed of the 27 largest stocks representing approximately 35 percent of the market value of the stocks traded on the New York Stock Exchange. As this sample contained all 27 of these stocks, each received a sample weight of one. A random New York Stock Exchange sample of 200 common stocks was drawn from the 1,253 traded on that exchange, giving each stock a sampling weight of 6.265 (1253 divided by 200). The random American Stock Exchange sample of 100 common stocks was drawn from the 957 traded, giving each of these stocks a weight of 9.57. The random over-the-counter sample of 150 common stocks was drawn from a population of 912 nationally traded over-the-counter issues, giving each of these stocks a weight of 6.08.<sup>40</sup> Using this procedure, reconstruction of the characteristics of the entire portfolio somewhat understated the proportion of funds placed in over-the-counter firms since the over-the-counter random sample was mainly composed of industrial firms.

The Study found that the surveyed institutions demonstrated an overwhelming preference for New York Stock Exchange listed securities. More than 96 percent of the dollar value of the estimated aggregate portfolio of all surveyed institutions was allocated to stocks of companies listed on that exchange (Table IX-14). Even accounts of registered investment companies, which were the most diversified in this respect, allocated slightly more than 92 percent of their portfolio funds to New York Stock Exchange listed companies. Self-administered foundations allocated virtually all of their portfolio funds to shares of companies listed on the New York Stock Exchange (Table IX-14). Institutional participation in stocks listed on the American Stock Exchange or traded over-the-counter appeared extremely sparse.<sup>41</sup> Estimated aggregate figures for their dollar allocations were 2.4 percent for American Stock Exchange stocks and 1.6 percent for stocks traded over-the-counter (Table IX-14).

A comparison was made with the List Z sample of 475 randomly

<sup>40</sup> The 912 companies were those included in Standard and Poor's COMPUSTAT over-the-counter service.

<sup>41</sup> As noted in sec. B.1, above, over-the-counter traded stocks of financial institutions and utilities were underrepresented in the Study's random sample.

selected securities. About 85 percent of the market value of the List Z sample was in New York Stock Exchange listed stocks (Table IX-15).

The Study also measured the industry preferences of the surveyed institutions in their stock allocations (Tables IX-15 and IX-16). Institutional stock preferences were classified by Standard Industrial Classifications. It was observed that every surveyed institutional group allocated more than half of their portfolio to the stocks of manufacturing companies (Table IX-15). In the aggregate, somewhat more than 69 percent of the dollar value of the portfolio funds of all surveyed institutions were allocated to manufacturing stocks. Self-administered corporate employee-benefit plans, which represented the smallest such allocation (50.2 percent), exhibited less aggregate concentration in stocks of manufacturing companies only because one very large plan was heavily concentrated in the stock of its parent company, engaged in retail trade (Table IX-15).

Conversely, the surveyed institutions exhibited, both individually and in the aggregate, the virtual absence of portfolio funds for the stocks of companies engaged in agriculture or contract construction (Table IX-15), reflecting the fact that very few of these are publicly held; most are family-owned or cooperative enterprises.

While almost 70 percent of the dollar value of the aggregate portfolio funds of the surveyed institutions were allocated to stocks of manufacturing companies, about 60 percent of the market value of all stocks in List Z was composed of such stocks (Table IX-15).

A further analysis of institutional concentration was undertaken to determine specifically which manufacturing industries represented the core of institutional common stock concentration (Table IX-16). The Study found that all surveyed institutions as a group were heavily concentrated in the stocks of chemical, petroleum, and computer equipment manufacturers; nearly 34 percent of their portfolio funds were invested in the stocks of companies in these industries (Table IX-16). These three industries, however, accounted for only 24 percent of the total market value of the companies in the Study's random sample. The major portion of this disparity was due to the concentration of investment in the stocks of computer equipment manufacturers (Table IX-16).

The Study also analyzed the distribution of nondiversifiable investment risk in each of the institutional type portfolios for stocks listed or traded on the New York or American stock exchanges (Table IX-17). Over-the-counter stocks appear in the "not available" column of the Table. A nondiversifiable investment risk figure of 1.0 indicates that the volatility of investment returns associated with the portfolio is comparable to that for the market as a whole.

Only two institutional groups exhibited an average nondiversifiable investment risk below 1.0—self-administered corporate employee-benefit plans and property and liability insurance groups (Table IX-17). The average nondiversifiable investment risk in the portfolios of the several institutions studied varied from a low of 0.95 for self-administered corporate employee-benefit plans to a high of 1.09 for the accounts of investment advisers other than registered investment companies (Table IX-17). The average for all institutions was above one (1.05), indicating that institutions as a group invested in securities

having slightly greater volatility than the Standard and Poor's Index of 500 stocks. The average for the List Z sample was 1.009.

The distribution of the debt-equity ratios of common stock in institutional portfolios also was determined (Table IX-18). The average debt-equity ratio in institutional portfolios ranged from a high of 69.2 percent for registered investment companies to a low of 38.7 percent for self-administered foundations. The average debt-equity ratio of stocks in the portfolio of all institutions in the Study's sample was 54.0 percent, compared to the 62.2 percent average of the List Z sample (Table IX-18).

Table IX-19 shows the distribution of the dividend payout ratio for common stocks held in institutional portfolios. The federal tax laws are structured so that most investors pay a higher marginal tax on corporate dividend payments than on capital gains. Institutions are taxed at various rates, with nonprofit institutions paying no income tax on either dividends or capital gains. Some institutions, such as bank trust departments and registered investment companies, manage portfolios for beneficiaries who are taxed at mixed rates. Tax paying institutions such as property and liability insurance companies are at the other extreme. Table IX-19 generally confirms that most institutions structure their portfolios in a manner advantageous from the point of view of their own (or their clients') tax liabilities. Thus, all the nonprofit institutions—self-administered foundations, educational endowments and corporate employee-benefit plans—had stocks with a higher average dividend payout ratio than that exhibited by the group of all institutions. These three self-administered institutional types exhibited average dividend payout ratios of 50.0, 46.0 and 47.4, respectively, as compared with an average for all institutions of 45.2 and for all stocks in List Z of 46.8 (Table IX-19).

The distribution of return on book value of the common stocks in institutional portfolios also was calculated (Table IX-20). The average return on book value in the portfolios of the institutions studied varied between a high of 16.4 percent for self-administered educational endowments and a low of 13.4 percent for self-administered foundations. The average for all institutions was 15.4 percent while the average for all stocks in List Z was 14.5 percent.

The distribution in growth of firms, as measured by growth in sales per share of stocks in the institutional portfolios, is shown on Table IX-21. The average growth rate of firms held in institutional portfolios varied between a high of 15.8 percent for registered investment companies and a low of 11.0 percent for self-administered foundations. The average for all institutions was 14.0 percent while the average of the Study's List Z sample was 13.2 percent.

Table IX-22 presents the distribution of the earnings-price ratio of the common stocks held in institutional portfolios. The average earnings-price ratio of institutions at 0.082 varied between a high of 0.105 for self-administered educational endowments and a low of 0.064 for self-administered corporate employee-benefit plans. The average for all stocks in List Z was 0.135.

### *b. Characteristic preferences between institutions and individuals*

Section C.3 raised the possibility that, on average, institutions hold stocks with characteristics that are different from those held by in-

dividuals. Tables IX-14 through IX-22 highlight differences between the characteristics of stocks preferred by institutions and those of the market as a whole. Those tables, however, give no indication of the statistical significance of the observed differences. A standard statistical t-test<sup>42</sup> was performed to test for statistically significant differences between each average characteristic in the aggregate institutional portfolio and the average characteristic in the market as represented by the random sample. Of the six characteristics tested, statistically significant differences were found for only two—nondiversifiable investment risk and return on book value. That is, on the average, the surveyed institutions accepted a higher nondiversifiable investment risk in their portfolios and a higher return on the book value of common stock than did the other sector of the market (Table IX-23).

*c. Differences in common stock characteristic profiles of institutional portfolios*

Section D.3.a presented the distribution of the intrinsic characteristics of the common stocks in institutional portfolios. This section presents a comparison of the characteristics of the stocks held by each of the six types of institutions surveyed. Thus, the Study compared the portfolio characteristics of these institutional types in order to ascertain whether different institutional types tend to concentrate investments in common stocks having different characteristics.

In distinguishing among institutional preferences the Study examined institutional portfolios in terms of a group or profile of these characteristics. The intrinsic characteristics used before were chosen to provide this profile:

1. Dividend payout ratio
2. Return on book value
3. Debt-equity ratio
4. Growth of firm
5. Size of firm
6. Nondiversifiable investment risk

Using regression analyses, with dummy dependent variables, the Study compared the portfolio preferences of each institutional type with each of the remaining institutional types.<sup>43</sup>

<sup>42</sup> See generally, J. Johnston, *Econometric Methods* (1963).

<sup>43</sup> Differences in portfolio characteristics between each pair of institutional types were tested through regression analysis using dummy dependent variables. A regression equation was estimated for each pair of institutional types. "Zero" was assigned as the dependent variable for all institutions belonging to one of the pairs—for example, bank trust departments—and "1.0" was assigned as the dependent variable for all institutions belonging to the other pair—for example, life insurance companies. This form of analysis gives the direction and statistical significance of differences in preferences between pairs of institutions.

The following regression equation was used:

$$Y = A + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 \text{ where}$$

$$Y = \text{Dummy dependent variable for institutional type.}$$

$$X_1 = \text{Average dividend payout ratio of common stock in portfolio of individual institution.}$$

$$X_2 = \text{Average return on book value of common stock in portfolio of individual institution.}$$

$$X_3 = \text{Average debt-equity ratio of common stock in portfolio of individual institution.}$$

$$X_4 = \text{Average growth rate of firms with common stock in portfolio of individual institution.}$$

$$X_5 = \text{Average asset size of firms with common stock in portfolio of individual institution.}$$

$$X_6 = \text{Average nondiversifiable investment risk of common stock in portfolio of individual institution.}$$

For more information about this technique see, G. Ladd, "Linear Probability Functions and Discriminant Functions," XXXIV *Econometrica* 873-885 (1966).

This type of analysis can show whether the characteristics taken as a group are different for two types of institutions, even though each of the individual characteristics by themselves may not differ significantly between the two institutional types. The analysis also can show whether an institutional type prefers a higher level of a specific characteristic than does the other institutional type.<sup>44</sup>

The Study found that the large majority of comparisons between the different institutional types evidence that these institutional types generally had common stock portfolios with differing characteristics. Of the fifteen pairs of institutional types compared, there were statistically significant differences between eleven of the pairs.<sup>45</sup> While there was generally a difference in the characteristics of the common stock portfolios of most pairs of institutional types, only three characteristics—return on book value, nondiversifiable investment risk and asset size—showed a pattern of significant differences between institutional types.<sup>46</sup>

The single characteristic studied which most often showed a statistically significant difference between pairs of institutional types is size of firm in terms of gross assets.

Some patterns of institutional preferences for particular characteristics appear from Table IX-24. Thus, for example, registered investment companies held stocks with significantly lower return on book value than did bank trust departments, property-liability insurance companies, and self-administered institutions; registered investment companies also held stocks with a lower, but not significantly different, return on book value than did the remaining two institutional types, other investment adviser accounts and life insurance companies.

The same three institutional types, compared to which registered investment companies had significantly lower return on book value, held stock with significantly higher nondiversifiable investment risk than investment companies.

The accounts of investment advisers other than registered investment companies showed significantly higher nondiversifiable investment risk in their portfolios than did property-liability insurance companies, life insurance companies and self-administered institutions.

Registered investment company portfolios held stocks of companies

<sup>44</sup> The coefficient of determination,  $R^2$ , appears in the last column of Table IX-24. If  $R^2$  differs significantly from zero, the characteristics taken as a group may be said to distinguish the two types of institutions, even though each of the individual characteristics, considered separately, may not differ significantly between the two institutional types.

The third through eighth columns of the table show the sign and significance of the coefficient associated with each characteristic. If the sign for a given characteristic is positive, it indicates that the institution listed in the second column of the table, "Dependent Variable One," had a greater propensity toward stocks with that characteristic than did the institution listed in the first column of the table. If the sign is negative, the institution in the first column of the table had a greater preference for stocks with that characteristic. The asterisk indicates that this difference is statistically significant at the 95 percent confidence level.

<sup>45</sup> For four pairs of institutional types the variations in common stock portfolios were not statistically significant. Those four pairs are bank trust departments and self-administered institutions; investment adviser accounts other than registered investment companies and life insurance companies; property-liability insurance companies and life insurance companies; and property-liability insurance companies and self-administered institutions.

<sup>46</sup> Two of the other three characteristics examined—dividend payout ratio and debt-equity ratio—showed occasional significant differences between institutional types. The sixth characteristic, growth of sales, did not account for any statistically significant difference between any of the fifteen pairs of institutional types.

with significantly lower asset size than did bank trust departments, property and liability insurance companies, life insurance companies and self-administered institutions, but significantly higher asset size than did the other accounts of investment advisers. Bank trust departments had portfolios containing firms with significantly larger asset size than did registered investment companies, other investment accounts and life insurance companies.

#### E. THE PORTFOLIO CHARACTERISTICS OF COMMON STOCKS IN PORTFOLIOS OF PARTICULAR INSTITUTIONAL ACCOUNTS

Sections C and D above examined the distribution and characteristics of common stock holdings for institutional portfolios in the aggregate. This section examines whether the portfolio characteristics of particular accounts differ systematically by particular types of account (without regard to type of manager) or manager (without regard to type of account).

#### 1. Differences in Portfolios Managed by Different Institutional Types

The individual account questionnaires provided sufficient information to study differences in management among employee-benefit plans and among nonprofit foundations and educational endowments.

The analysis employed is similar to that described in section D.3.c above.<sup>47</sup> That procedure combined six characteristics of common stocks into a profile of the portfolio. The average value of each of the following six characteristics was determined for each portfolio analyzed:

1. Dividend payout ratio
2. Return on book value
3. Debt-equity ratio
4. Growth of sales
5. Asset size
6. Nondiversifiable investment risk.

The most important question to be answered by this section is whether accounts of similar types have similar portfolio characteristics regardless of the type of manager, or whether the characteristics differ systematically by type of manager.

This analysis was first employed for employee-benefit accounts using 125 bank trust department, 29 investment adviser and 22 self-administered respondents. While the number of accounts studied may be too small to generalize for the entire industry, evidence was found that the portfolio characteristics of employee-benefit accounts did differ systematically by type of manager.<sup>48</sup> The same analysis also was performed for foundation and educational endowment accounts using 24 bank trust department, 19 investment adviser and 24 self-administered respondents. Again, evidence was found that the portfolio characteristics of these accounts differed systematically by type of manager.<sup>49</sup>

<sup>47</sup> The technique used was multiple discriminant analysis using the generalized Mahalanobis  $D^2$  statistic. For more information about the technique, see, A. Cooley and P. Lohnes, *Multivariate Procedures For the Behavioral Sciences* (1962).

<sup>48</sup> A Mahalanobis  $D^2$  of 62.79 was obtained, indicating that the hypothesis that the values of each of the six portfolio characteristics tend to be the same regardless of the type of management is rejected at the 95 percent confidence level.

<sup>49</sup> A Mahalanobis  $D^2$  of 26.39 was obtained, indicating that the hypothesis that the six portfolio characteristics of these accounts do not differ systematically by type of manager is rejected at the 95 percent confidence level.

Having found for these samples that the type of manager determines the portfolio characteristics of both types of accounts, the difference between account portfolio characteristics of the different types of managers was examined for the following six pairs of account types:

1. Nonprofit foundations and educational endowments administered by bank trust departments and those managed by investment advisers.
2. Nonprofit foundations and educational endowments administered by bank trust departments and those that are self-administered.
3. Nonprofit foundations and educational endowments administered by investment advisers and those that are self-administered.
4. Employee-benefit plans administered by bank trust departments and those managed by investment advisers.
5. Employee-benefit plans administered by bank trust departments and those that are self-administered.
6. Employee-benefit plans administered by investment advisers and those that are self-administered.

Using regression analyses, the Study compared the portfolio characteristics of each of the individual accounts managed by the three institutional types. The procedure used is similar to that described in Section D.3.c, above.<sup>50</sup> Table IX-25 summarizes the results of this analysis.

Of the six pairings, the Study found that only one, the comparison between the accounts of foundations and educational endowments administered, on the one hand, by bank trust departments, as compared to those accounts that are self-administered, on the other hand, did not exhibit any statistically significant variation in portfolio characteristics.

While all the other pairings evidenced a statistically significant variation in the portfolio characteristics of the accounts analyzed, depending on institutional management, not all of the individual characteristics examined were statistically significantly different from one portfolio to another. The greatest variation of individual characteristics occurred in the comparison between employee-benefit plans administered by bank trust departments and employee-benefit plans that are self-administered. The self-administered employee benefit plans had stocks with higher dividend payout ratios and higher debt-equity ratios than those held by employee-benefit plans managed by bank trust departments. Conversely, the employee-benefit plans managed by bank trust departments held stocks of companies with greater sales growth than did the employee-benefit plans that are self-administered.

<sup>50</sup> The following regression equation using dummy dependent variables was used:

$$Y = A + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 \text{ where:}$$

Y = Dummy dependent variable.

X<sub>1</sub> = Average dividend payout ratio of common stock in portfolio of individual account.

X<sub>2</sub> = Average return on book value of common stock in portfolio of individual account.

X<sub>3</sub> = Average debt-equity ratio of common stock in portfolio of individual account.

X<sub>4</sub> = Average growth rate of sales of firms with common stock in portfolio of individual account.

X<sub>5</sub> = Average asset size of firms with common stock in portfolio of individual account.

X<sub>6</sub> = Average nondiversifiable investment risk of common stock in portfolio of individual account.

In the case of employee-benefit plan accounts, all three types of institutional managers maintained portfolios with different characteristics.

Foundations and educational endowments administered by investment advisers held stocks with higher asset size and higher debt-equity ratio than did foundations and educational endowments administered by bank trust departments.

## 2. Differences in Portfolios of Accounts within Bank Trust Departments

A question often raised is whether a portfolio manager selects different types of stocks for different types of accounts. To determine whether or not portfolio managers do consciously differentiate in stock holdings for different accounts, the Study analyzed the holdings of accounts managed by bank trust departments. The accounts of bank trust departments provide the greatest diversity of account types.

Of the 14 different types of bank trust accounts surveyed, six had a sufficient number of responses to enable their use in statistical tests. The account types and number of responses were:

<i>Account Type</i>	<i>Responses</i>
Foundations and educational endowments.....	36
Employee-benefit .....	186
Pooled employee-benefit.....	28
Personal trust.....	286
Common trust.....	33
Miscellaneous .....	32

Using discriminant analysis, the Study attempted to determine whether the values of the six portfolio characteristics tended to be the same regardless of the type of account. Evidence was found that portfolio characteristics did tend to differ for different types of bank trust department accounts.<sup>51</sup>

Specific differences in portfolio characteristics between all accounts managed by bank trust departments and three particular account types were tested using the regression analysis technique employed in sections D.3.c and E.1, above. Tests were performed on the following pairs of portfolios:

1. Bank trust departments excluding personal trust accounts and personal trust accounts.
2. Bank trust departments excluding employee-benefit plans and bank trust managed employee-benefit plans.
3. Bank trust departments excluding foundations and educational endowments and bank trust managed foundations and educational endowments.

In addition to comparing the differences in portfolio characteristics between the entire bank trust department and a specific account, the analysis was also performed on two kinds of accounts with somewhat similar investment objectives, pooled employee-benefit accounts and employee-benefit accounts.

The results of this analysis are presented in Table IX-26. Of the

<sup>51</sup> A Mahalanobis  $D^2$  of 157.84 was obtained, indicating that the hypothesis that portfolio characteristics tend to be the same for different types of bank trust department accounts is rejected at the 95 percent confidence level.

four paired comparisons, only two demonstrated a statistically significant difference in characteristics of portfolio common stocks. The two comparisons which exhibited statistically significant differences are (1) the portfolios of all bank trust department accounts surveyed excluding the personal trust account portfolios and the portfolios of the personal trust accounts, and (2) the bank trust department accounts excluding employee-benefit plan portfolios and bank trust managed employee-benefit plan portfolios.

The personal trust accounts had stocks with higher dividend payout ratios and higher asset sizes in their portfolios than did the other bank trust department administered accounts. The personal trust accounts also had stocks in their portfolios with lower nondiversifiable investment risk than did other bank administered accounts.

The employee-benefit plans had stocks with lower dividend payout ratios and asset size in their portfolios than did the other bank administered accounts. The employee-benefit plans also had stocks with higher debt-equity ratios in their portfolios than did the other bank administered accounts. In both of the above comparisons, asset size and dividend payout ratios appeared as significant differentiating factors.

### 3. Conclusions about Management of Account Portfolios

The Study found some evidence that the portfolios of employee-benefit accounts and foundation and educational endowment accounts are not independent of account managers and that they do differ systematically by type of manager.

Examination of a sample of accounts managed by one type of institution, bank trust departments, demonstrated that the portfolios of the different accounts were not homogeneous, but differed systematically by type of account.

## F. SUMMARY AND CONCLUSIONS

Prior to this Study, various attempts had been made to ascertain some of the characteristics of institutional portfolio composition. But most prior analyses had been limited in scope and relatively little detailed data on the composition of institutional common stock holdings had been collected.

### 1. Distributions of Stockholdings in Institutional Equity Portfolios

An analysis was made of the portfolio common stocks held in 1969 by over 200 of the largest financial institutions (representing 70 percent of all institutional holdings of common stock). The analysis focused on 800 common stocks listed on either the New York or American stock exchanges or nationally traded over-the-counter and various subsamples of those stocks.

The analysis disclosed that the aggregate portfolios of the big institutions tended to be concentrated in a comparatively small number of stocks with large market value.

While a relatively few stocks dominated the equity assets of institutional portfolios regardless of size, the total number of stocks in a

portfolio was not the same for all sizes of portfolios. The Study found that the total number of stocks in a portfolio increased as the value of the portfolio increased, with an average aggregate portfolio size of \$616 million spread over 121 stocks, increasing by one stock for each additional \$16 million in portfolio assets.

The analysis demonstrated that while the total number of stocks in a portfolio increased with the market value of the portfolio, the minimum number of stocks needed to constitute 50 percent of the market value was independent of institutional type as measured either by the total number of stocks or by market value of the portfolio.

Another dimension of portfolio concentration is how often each portfolio invests a significant portion of its funds in a particular stock. The Study found that significant portions of all institutional portfolios were invested in a relatively small number of stocks of the same large, well-known companies.

To determine the extent of this concentration, the Study ranked each institutional portfolio's List A common stock holdings in descending order of their market values (in the portfolios). The smallest number of (the larger) holdings required to account for at least 50 percent of the portfolio's value then was counted and summed across the portfolios studied to arrive at the number of "significant" positions available in the top 50 percent of the portfolios.

This count showed 1,968 positions in the top 50 percent for all 213 institutions studied. At least half of these positions were filled by 12 different stocks, while all 1,968 positions were filled by 232 of the total of nearly 800 stocks in the List A sample. Between 6 and 24 stocks accounted for half the positions available in each institutional type. They were generally the same companies for each type. The popularity concentration was greatest among bank trust departments and least among large registered investment company complexes.

Establishing that institutions hold significant portions of their portfolios in the same small number of stocks does not necessarily mean that institutions are overly concentrated in these stocks. To determine whether institutional portfolios are, in fact, heavily concentrated in these stocks, the Study determined whether institutions held more or less of a particular stock than is explained by the stock's total market value.

The proportion of the holdings of a particular common stock in the aggregate of all portfolios (institutional and individual) is the ratio of the value of that stock to the total market value of all stocks or any subset, such as the Study's random List Z. This is the "market ratio." Similarly, the proportion of the holdings of any portfolio in a particular stock is the ratio of the market value of the holdings in that stock to the market value of the entire portfolio. This is the "portfolio ratio."

If institutions hold particular stocks in proportion to their market values, the market ratio and the portfolio ratio would be equal. By dividing the portfolio ratio by the market ratio, it is possible to derive a third ratio, the "concentration index," which indicates whether institutions hold particular stocks more or less than in proportion to their total market values.

Using this analysis, the Study found that institutions generally pre-

ferred the securities of larger companies to those of smaller firms. The Study found that the larger the firm, the more likely it was to have a higher concentration index in institutional portfolios. The general public, therefore, must hold a less than proportionate share of these larger firms. This finding was also true for each type of institution analyzed separately. The stock of all large companies, however, was not held in disproportionately large amounts by institutional investors. The securities of 9 of the 35 companies with a market value of \$1 billion or more on September 30, 1969, in the Study's random sample were held in disproportionately small amounts by institutional investors.

No single reason can explain this phenomenon of institutional concentration in the stocks of companies having the largest market value. Administrative cost considerations may lead institutions to seek portfolio liquidity through a strategy of concentration in a few large market value stocks rather than dispersion among a larger number of smaller companies. The widespread view that larger companies have achieved greater stability in their earnings and, thus, may constitute less risky investments also may account for observed institutional preferences for the stocks issued by these companies. Some portfolio managers also have indicated that they feel "locked in" to securities whose prices have increased considerably because of a reluctance on the part of their clients or directors to expose themselves to sizable, taxable capital gains. In addition, there are several institutional factors which may reinforce tendencies for institutions to concentrate their holdings in relatively few large market value stocks. Some corporations have large individual or family holdings which appear as personal trusts managed by banks and investment advisers. Also, corporate profit-sharing plans, particularly self-administered plans, tend to invest predominantly in the stock of the sponsoring corporation.

The Study also found that the institutions surveyed managed, on the average, more than 36 percent of the outstanding shares of the 27 largest companies listed on the New York Stock Exchange. Aggregate institutional management ranged from a low of 10.2 percent to a high of 54.2 percent. In every instance, the institutions surveyed held a higher percentage of the stocks of these 27 companies than were publicly traded on the New York Stock Exchange during 1968. Thus, institutional holdings ranged from a low of 102 percent of 1968 New York Stock Exchange volume to a high of more than 2,000 percent of that volume. Stocks with relatively low market values turned over a greater proportion of their shares than did stocks with relatively large market values. One implication of these observations is that the relatively large market value of the stocks in which institutions concentrate their holdings may overstate somewhat the liquidity of these portfolio positions.

## 2. Characteristics of Common Stocks in Institutional Portfolios

Institutional portfolio concentration also may be explained by factors important to security analysts in evaluating common stocks. The following common stock characteristics were examined: debt-equity ratio, dividend payout ratio, growth of sales per share, return on book value, nondiversifiable investment risk, market value of equity, and

growth in price per share. The Study found that all the above factors taken together add very little to an explanation of aggregate institutional common stock portfolio concentration than that provided by larger market value alone.

In distinguishing among institutional common stock portfolio preferences, institutional portfolios were examined in terms of a group or profile of six characteristics—dividend payout ratio, return on book value, debt-equity ratio, growth of firm, size of firm and nondiversifiable investment risk. The portfolio preferences of each institutional type were compared with each of the remaining institutional types.

Most comparisons between the different institutional types evidenced that these different institutional types generally have common stock portfolios with differing characteristics. While there is generally a difference in the characteristics of the common stock portfolios of most institutional types, only three characteristics—return on book value, nondiversifiable investment risk and asset size—showed a pattern of significant differences between institutional types. The single characteristic studied which most often shows a statistically significant difference between pairs of institutional types is the asset size of the portfolio company.

### 3. Portfolio Characteristics of Common Stocks in Portfolios of Particular Institutional Accounts

Analysis of the sample of common stock portfolios for the same types of accounts showed some variance depending on the type of institutional manager. Evidence was found that the portfolio characteristics of employee-benefit accounts differed systematically depending on whether these accounts were managed by bank trust departments or investment advisers or were self-administered. Thus, for example, self-administered employee-benefit plan portfolios held stocks with higher dividend payout ratios and higher debt-equity ratios than those held by employee-benefit plans managed by bank trust departments. Conversely, the employee-benefit plans managed by bank trust departments held stocks of companies with greater sales growth than did the employee-benefit plans that were self-administered. The same analysis also was performed for foundation and educational endowment accounts with similar results.

Analysis was also performed on different accounts managed by the same institution. This took the form of a comparison of all accounts managed by bank trust departments and four particular account types—personal trust accounts, employee-benefit plans, foundation and educational endowments and pooled employee-benefit plans. The six portfolio characteristics examined were dividend payout ratio, return on book value, debt-equity ratio, growth of sales, asset size and nondiversifiable investment risk. This analysis disclosed that the portfolios of different types of accounts managed by the same manager—bank trust departments—tended to have different characteristics with personal trust and employee-benefit accounts having systematically higher dividend payout ratios and firm sizes, employee-benefit accounts having higher debt-equity ratios and personal trust accounts having higher degrees of market volatility or nondiversifiable investment risk than other types of bank-managed accounts.

TABLE IX-1

SUMMARY OF INSTITUTIONAL SIZE AND COVERAGE OF COMMON STOCK SAMPLES  
1969 a/

Institution Type	Number of Institu- tions	Total Assets (\$billions)	Total Common Stock (\$billions)	Average Ratio of Common Stock to Total Assets (percent)	Average Ratio of List A Holdings to Common Stock Assets (percent)	Average Ratio of List Z Holdings to Common Stock Assets (percent)
Bank Trust Departments	50	194.8	130.8	67.0	50.7	40.9
Investment Advisers with Large Registered Invest- ment Companies	69 <u>b/</u>	79.1	59.2	77.6	41.4	26.0
Property and Liability Insurance Groups	25	30.8	8.3	26.7	46.3	35.8
Life Insurance Companies	22 <u>c/</u>	139.2	8.5	8.3	42.2	30.2
Self-Administered Employee-Benefit Plans	12	12.3	8.9	70.8	59.3	50.2
Self-Administered Foundations	9	5.3	4.0	73.4	50.9	45.4
Self-Administered Educational Endowments	20	3.6	2.5	70.5	46.7	37.4

a/ Year-end data were used for total assets and total common stock holdings. September 30, 1969, data were used for portfolio holdings.

b/ Data for total assets were not available for two firms. Data for total assets and total common stock were as of July 1969.

c/ Data for total assets were not available for four Canadian firms.

TABLE IX-2

## MEASURES OF INSTITUTIONAL CONCENTRATION

FIFTY LARGEST BANK TRUST DEPARTMENTS  
1969 <sup>a/</sup>

<u>Proportion of List A Portfolio Represented by Single Largest List A Holding</u>	<u>Proportion of Total Common Stock Portfolio Represented by Single Largest List A Holding</u>	<u>Proportion of Shares Outstanding of Company Represented by Single Largest List A Holding</u>	<u>Minimum Number of List A Stocks Needed to Achieve 50% of List A Portfolio Value</u>	<u>Number of List A Stocks in Portfolio</u>
74.4	44.0	8.4	1	153
49.3	38.4	4.1	2	134
35.7	23.6	18.5	4	232
32.7	19.2	5.4	4	235
30.4	13.2	0.3	4	62
27.1	15.3	2.4	7	338
26.8	13.7	1.4	7	327
26.8	11.5	9.5	8	280
26.6	16.7	0.4	5	84
25.7	10.6	0.7	5	203
25.3	15.2	3.7	8	351
24.5	16.4	0.6	5	261
22.6	12.7	3.9	6	312
22.1	13.4	0.9	8	370
21.6	13.0	4.4	7	287
21.4	9.8	0.3	10	184
20.9	9.6	0.2	5	98
20.5	11.5	0.3	6	278
20.4	9.4	5.3	4	265
19.7	10.6	1.3	8	331
18.6	9.4	0.2	9	197
17.7	6.4	0.5	12	235
17.5	11.1	0.3	10	230
17.5	10.2	1.9	8	394
16.2	5.8	1.5	9	165
16.0	11.2	0.2	7	350
15.8	10.5	0.3	6	200
15.2	7.2	0.3	6	181
14.9	7.7	0.3	8	192
14.9	8.5	0.2	7	170
14.7	7.2	0.6	10	391
14.7	7.9	2.1	13	370
14.4	4.9	0.3	10	247

TABLE IX-2  
(continued)

Proportion of List A Portfolio Represented by Single Largest List A Holding	Proportion of Total Common Stock Portfolio Represented by Single Largest List A Holding	Proportion of Shares Outstanding of Company Represented by Single Largest List A Holding	Minimum Number of List A Stocks Needed to Achieve 50% of List A Portfolio Value	Number of List A Stocks in Portfolio	
14.2	5.0	0.3	8	151	
14.1	6.7	7.6	11	357	
13.7	6.5	2.8	9	163	
13.2	6.9	0.4	7	345	
13.0	8.5	0.6	7	207	
12.6	5.7	2.7	11	294	
12.4	4.5	0.2	11	282	
12.1	7.8	8.3	7	314	
11.8	7.4	1.3	7	169	
10.9	6.9	0.3	10	212	
10.2	3.8	0.2	16	303	
10.0	2.9	0.1	13	298	
9.8	5.2	0.2	11	246	
9.7	2.2	0.0	11	137	
9.0	3.3	0.3	8	203	
8.7	4.2	0.1	17	256	
8.3	1.8	0.1	10	150	
AVERAGE	19.5	10.5	2.1	8.1	243.8

SOURCES: I-3, I-60

a/ Holdings of individual stocks as of September 30, 1969; total portfolio evaluated as of December 31, 1969.

TABLE IX-3

## MEASURES OF INSTITUTIONAL CONCENTRATION

71 INVESTMENT ADVISORS WITH LARGEST REGISTERED INVESTMENT COMPANIES  
1969 a/

<u>Proportion of List A Portfolio Represented by Single Largest List A Holding</u>	<u>Proportion of Total Common Stock Portfolio Represented by Single Largest List A Holding</u>	<u>Proportion of Shares Outstanding of Company Represented by Single Largest List A Holding</u>	<u>Minimum Number of List A Stocks Needed to Achieve 50% of List A Portfolio Value</u>	<u>Number of List A Stocks in Portfolio</u>
33.4	11.3	0.0	4	16
30.9	1.3	1.3	3	21
30.2	14.8	0.1	3	106
28.8	11.2	0.9	3	10
28.1	15.5	0.9	4	40
26.9	5.0	0.0	3	15
24.8	4.5	1.2	3	7
23.7	11.0	0.1	6	175
22.4	12.5	0.3	9	176
22.4	11.7	0.4	7	218
21.2	8.5	1.2	10	436
20.7	12.2	1.0	9	69
19.1	4.4	0.6	6	101
18.8	6.8	0.1	6	22
18.0	8.7	0.1	9	65
17.8	10.6	0.4	9	222
17.6	8.8	1.3	7	40
17.3	8.7	0.6	5	48
16.6	8.4	3.4	10	127
16.1	7.8	3.9	15	99
15.6	8.8	0.4	10	152
15.4	7.5	0.3	8	62
15.1	8.8	0.1	9	49
15.0	2.0	10.0	5	25
15.0	7.3	0.6	6	30
14.7	6.7	0.0	7	30
14.5	1.1	0.0	5	27
14.5	7.9	0.1	11	145
14.0	7.6	1.0	20	199
13.1	5.5	0.1	5	13
13.0	6.5	0.6	14	351
13.0	N.A. <u>b/</u>	0.8	5	16
12.7	4.9	0.1	7	38
12.4	4.7	0.4	6	58
12.4	5.6	0.9	5	71

TABLE IX-3  
(continued)

Proportion of List A Portfolio Represented by Single Largest List A Holding	Proportion of Total Common Stock Portfolio Represented by Single Largest List A Holding	Proportion of Shares Outstanding of Company Represented by Single Largest List A Holding	Minimum Number of List A Stocks Needed to Achieve 50% of List A Portfolio Value	Number of List A Stocks in Portfolio	
11.7	4.5	0.0	10	74	
11.5	6.4	0.9	6	23	
11.3	3.4	3.5	12	133	
11.3	5.0	1.1	8	70	
11.2	5.1	0.3	12	230	
11.0	3.7	0.1	7	22	
10.7	3.8	0.6	8	28	
10.7	2.3	0.8	9	36	
10.7	5.3	0.1	15	171	
10.6	N.A. <sup>b/</sup>	0.0	6	36	
10.5	5.7	0.3	16	101	
10.5	5.7	0.4	14	153	
10.5	4.3	0.5	7	28	
10.4	3.5	0.2	9	81	
9.9	4.0	0.1	11	70	
9.8	3.6	0.7	8	43	
9.5	3.3	0.0	9	32	
9.4	4.1	0.1	16	94	
9.3	4.2	0.2	11	72	
9.3	3.5	0.0	9	30	
8.4	2.2	0.1	14	105	
8.4	3.3	0.1	12	47	
8.2	3.2	0.1	13	100	
7.9	2.0	4.1	12	112	
7.8	3.3	0.0	13	55	
7.2	3.6	3.5	16	141	
7.2	3.8	0.3	21	186	
7.2	2.1	0.3	9	34	
7.0	2.9	0.0	12	67	
6.3	2.4	0.1	12	77	
6.3	3.4	4.9	13	54	
5.2	2.9	0.1	16	65	
5.2	1.5	0.0	15	57	
4.9	1.7	0.0	15	61	
4.8	2.4	0.1	14	55	
4.5	1.7	5.7	18	114	
AVERAGE	13.8	5.7	0.9	9.6	96.4

SOURCES: I-3, I-5 and I-14

<sup>a/</sup> Holdings of individual stocks as of September 30, 1969; total portfolio evaluated as of June 30, 1969.<sup>b/</sup> Data for total common stock were not available for two investment advisors.

TABLE IX-4

TWENTY-FIVE LARGEST PROPERTY AND LIABILITY INSURANCE GROUPS  
1969 <sup>a/</sup>

Proportion of List A Portfolio Represented by Single Largest List A Holding	Proportion of Total Common Stock Portfolio Represented by Single Largest List A Holding	Proportion of Shares Outstanding of Company Represented by Single Largest List A Holding	Minimum Number of List A Stocks Needed to Achieve 50% of List A Portfolio Value	Number of List A Stocks in Portfolio
34.9	18.5	0.2	5	57
31.3	14.6	0.1	5	51
31.0	17.4	0.5	5	76
26.6	10.3	0.0	4	21
26.0	11.4	0.1	9	57
22.8	13.6	0.1	9	64
22.3	12.6	0.2	8	48
21.6	7.1	3.0	6	55
20.6	9.5	0.1	8	51
17.9	9.5	0.0	7	34
17.3	9.1	0.3	5	35
16.7	7.8	0.1	8	53
15.1	3.7	1.3	9	51
14.6	6.9	8.4	11	51
14.0	6.2	0.1	8	50
12.8	6.7	0.3	7	57
11.7	6.8	0.0	7	27
10.2	5.7	0.1	8	31
9.9	3.5	0.0	8	44
9.5	4.3	0.1	12	52
9.2	2.5	0.2	10	41
7.4	4.3	0.0	9	32
7.1	3.2	0.1	11	48
7.0	2.7	0.5	14	43
5.8	2.4	0.0	16	63
AVERAGE 16.9	8.0	0.6	8.4	47.7

SOURCES: I-3, I-21

<sup>a/</sup> Holdings of individual stocks as of September 30, 1969; total portfolio evaluated as of December 31, 1969.

TABLE IX-5

. TWENTY-SIX LARGEST LIFE INSURANCE COMPANIES  
1969 a/

Proportion of List A Portfolio Represented by Single Largest List A Holding	Proportion of Total Common Stock Portfolio Represented by Single Largest List A Holding	Proportion of Shares Outstanding of Company Represented by Single Largest List A Holding	Minimum Number of List A Stocks Needed to Achieve 50% of List A Portfolio Value	Number of List A Stocks in Portfolio	
40.3	10.3	24.3	2	16	
31.9	N.A. <u>b/</u>	0.0	4	17	
24.1	7.1	0.1	5	67	
19.8	N.A. <u>b/</u>	0.1	8	61	
19.7	4.1	0.2	5	20	
16.8	8.9	0.0	6	27	
16.7	10.2	0.2	12	65	
15.1	7.7	0.1	8	34	
14.8	N.A. <u>b/</u>	0.0	7	23	
14.2	3.5	0.0	6	26	
13.2	6.7	0.1	11	56	
12.9	5.9	0.0	12	43	
11.5	3.6	0.1	10	91	
11.5	6.5	0.2	9	40	
11.0	5.6	0.2	11	44	
10.9	4.0	0.0	14	51	
10.7	N.A. <u>b/</u>	0.1	7	24	
10.3	5.5	0.3	13	63	
9.9	5.9	0.0	9	44	
9.9	3.7	0.0	9	35	
9.7	5.1	0.1	11	42	
8.6	1.9	0.0	10	38	
8.6	3.9	0.0	14	51	
8.6	3.6	0.4	11	37	
6.0	2.3	0.0	13	41	
5.1	2.0	0.2	14	71	
AVERAGE	14.3	5.4	1.0	9.3	43.3

SOURCES: I-3, I-21, I-50

a/ Holdings of individual stocks as of September 30, 1969; total portfolio evaluated as of December 31, 1969.

b/ Data for total common stock not available for four Canadian firms.

TABLE IX-6

TWELVE LARGEST SELF-ADMINISTERED CORPORATE EMPLOYEE-BENEFIT PLANS  
1969 <sup>a/</sup>

<u>Proportion of List A Portfolio Represented by Single Largest List A Holding</u>	<u>Proportion of Total Common Stock Portfolio Represented by Single Largest List A Holding</u>	<u>Proportion of Shares Outstanding of Company Represented by Single Largest List A Holding</u>	<u>Minimum Number of List A Stocks Needed to Achieve 50% of List A Portfolio Value</u>	<u>Number of List A Stocks in Portfolio</u>
100.0	100.0	11.3	1	1
100.0	100.0	2.7	1	1
96.7	91.4	21.9	1	29
82.9	64.2	6.8	1	23
19.4	11.4	0.4	8	50
13.8	4.3	0.0	13	43
13.5	7.3	7.7	11	92
12.2	5.3	0.1	11	50
8.4	2.7	0.0	12	46
8.3	4.6	0.1	11	45
7.4	2.8	0.0	10	35
5.5	1.9	0.1	14	53
AVERAGE 39.0	33.0	4.3	7.8	39.0

SOURCES: I-3, I-8

<sup>a/</sup> Holdings of individual stocks as of September 30, 1969; total portfolio evaluated as of December 31, 1969.

TABLE IX-7

NINE LARGEST SELF-ADMINISTERED FOUNDATIONS  
1969 a/

<u>Proportion of List A Portfolio Represented by Single Largest List A Holding</u>	<u>Proportion of Total Common Stock Portfolio Represented by Single Largest List A Holding</u>	<u>Proportion of Shares Outstanding of Company Represented by Single Largest List A Holding</u>	<u>Minimum Number of List A Stocks Needed to Achieve 50% of List A Portfolio Value</u>	<u>Number of List A Stocks in Portfolio</u>
73.3	55.6	24.8	1	70
72.4	8.8	1.5	1	30
64.3	4.7	2.4	1	15
49.1	34.0	3.8	2	32
38.8	32.2	1.6	2	25
32.7	27.6	0.3	2	19
22.6	19.1	0.1	4	25
20.6	0.8	0.0	4	9
19.3	8.0	0.1	6	24
AVERAGE 43.7	21.2	3.8	2.6	27.7

SOURCES: I-3, I-21

a/ Holdings of individual stocks as of September 30, 1969; total portfolio evaluated as of December 31, 1969.

TABLE IX-8

TWENTY LARGEST SELF-ADMINISTERED EDUCATIONAL ENDOWMENTS  
1969 <sup>a/</sup>

<u>Proportion of List A Portfolio Represented by Single Largest List A Holding</u>	<u>Proportion of Total Common Stock Portfolio Represented by Single Largest List A Holding</u>	<u>Proportion of Shares Outstanding of Company Represented by Single Largest List A Holding</u>	<u>Minimum Number of List A Stocks Needed to Achieve 50% of List A Portfolio Value</u>	<u>Number of List A Stocks in Portfolio</u>
39.0	30.2	1.2	2	17
34.0	11.3	0.0	2	36
32.9	20.4	0.2	3	21
26.9	13.4	2.6	4	42
26.0	12.7	0.0	8	48
25.2	10.6	0.0	5	22
24.9	12.4	0.0	6	37
21.1	11.6	0.0	7	46
20.3	6.5	0.0	4	26
16.4	7.6	0.1	7	43
14.7	7.6	0.0	8	49
13.8	5.0	0.0	9	36
13.8	5.9	0.0	6	26
13.3	7.2	0.0	10	34
12.4	5.3	0.0	11	46
11.6	4.0	0.0	8	40
11.6	6.0	0.0	8	32
10.1	4.1	0.0	7	48
10.3	5.4	0.0	9	34
7.1	2.3	0.4	10	32
AVERAGE 19.3	9.5	0.2	6.7	35.8

SOURCES: I-3, I-11

<sup>a/</sup> Holdings of individual stocks as of September 30, 1969; total portfolio evaluated as of December 31, 1969.

TABLE IX-9

AVERAGE MEASURES OF INSTITUTIONAL PORTFOLIO CONCENTRATION  
1969 <sup>a/</sup>

Institutional Type	Number of Institutions	Average Proportion of List A Portfolio Represented by Single Largest Holding	Average Proportion of Total Common Stock Portfolio Represented by Single Largest List A Holding	Average Proportion of Shares Outstanding of Co. Represented by Single Largest List A Holding	Average Minimum Number of List A Stocks Needed to Achieve 50% of List A Portfolio Value	Average Number of List A Stocks in Portfolio
Largest Bank Trust Departments	50	19.5	10.5	2.1	8.1	243.8
Investment Advisors with Largest Registered Investment Companies	71	13.8	5.7	0.9	9.6	86.4
Largest Property and Liability Groups	25	16.9	8.0	0.6	8.4	47.7
Largest Life Insurance Companies	26	14.3	5.4	1.0	9.3	43.3
Largest Self-Administered Corporate Employee-Benefit Plans	12	39.0	33.0	4.3	7.8	39.0
Largest Self-Administered Foundations	9	43.7	21.2	3.8	2.6	27.7
Largest Self-Administered Educational Endowments	20	19.3	9.5	0.2	6.7	35.8

<sup>a/</sup> Holdings of individual stocks as of September 30, 1969; total portfolio evaluated as of December 31, 1969, except investment advisers whose portfolios were evaluated as of June 30, 1969.

TABLE IX-10

FREQUENCY OF APPEARANCE OF LIST A STOCKS IN TOP FIFTY PERCENT  
OF INSTITUTIONAL LIST A PORTFOLIOS

September 30, 1969

Common Stock	Other Accounts of 71 Investment Advisers						
	All Institutions	50 Largest Bank Trust Departments	Registered Investment Companies of 71 Investment Advisers	Registered Advisers with Largest Registered Investment Companies a/	25 Registered P/L Groups	26 Largest Life Insurance Companies	41 Self- Administered Tax-Exempt b/ Institutions
IBM	182	48	48	19	23	20	24
General Motors	114	42	15	13	14	13	17
Standard Oil N.J.	112	34	26	9	16	10	17
Eastman Kodak	102	39	15	8	15	9	16
American Tel & Tel	75	19	21	7	7	12	9
Texaco, Inc.	73	22	10	6	12	11	12
Xerox Corporation	70	16	23	9	9	7	6
General Electric Co.	60	24	12	4	5	11	4
Gulf Oil Corporation	52	10	6	5	10	10	11
Atlantic Richfield Co.	51	5	22	8	4	9	3
Mobil Oil Corporation	49	9	11	6	5	9	9
Sears, Roebuck & Co.	44	19	8	5	3	2	7
Polaroid Corporation	41	4	20	8	4	3	2
Minn. Mining & Mfg.	33	10	9	4	4	3	3
Standard Oil California	28	8	8	4	2	4	2
Burroughs Corporation	27	3	15	2		4	3
Ford Motor Company	26	4	5	4	3	3	7
Sperry Rand Corporation	26	2	13	3	3	2	3
Standard Oil Indiana	24	3	5	2	3	4	7
Merck & Company	22	5	8	2	3		4
Control Data Corporation	21	2	10	2	3	4	
International Tel. & Tel.	21	5	8	3	2	2	1
Avon Products, Inc.	20	4	6		1	6	3
National Cash Register	16	1	5	3	2	3	2
Penney, J.C., Company	16	2	2	1	4	3	4
Procter & Gamble Company	14	5	7		1		1
International Paper Co.	13		8		1		4

TABLE IX-10  
(Continued)

Common Stock	Other Accounts of 71 Investment Advisers						
	All Institutions	50 Largest Bank Trust Departments	Registered Investment Companies of 71 Investment Advisers	with Largest Registered Investment Companies a/	25 Largest P/L Groups	26 Largest Life Insurance Companies	41 Self- Administered Tax-Exempt b/ Institutions
Boise Cascade Corp.	12	2	5	1	3	1	
Goodyear Tire & Rubber	12	1	6	1	2	1	1
American Home Products	11	4	3		1	2	1
Connecticut General, Inc.	11	2	6			1	2
Halliburton Company	11		2	2	2		5
Aetna Life & Casualty	10	2	7				1
Chrysler Corporation	10	1	3	2	1	1	2
Westinghouse Electric	10	1	3	1		4	1
Coastal State Gas Products	9	1	3	1		1	3
General Tel & Electronic	9	1	4	1		2	1
Pacific Gas & Electric	9	3	2	1	2	1	
Reynolds Tobacco	9	2	5			1	1
Phillips Petroleum	9	2	4			3	
Dupont	8	3	3	1			1
Crown Zellerbach	8		5			1	2
Eli Lilly & Company	8		4		1		3
Motorola, Inc.	8		5	1	1		1
Pfizer, Chas. & Company	8	1	3		1	1	2
Schering Corporation	8		3	1	2		2
Bethlehem Steel Corporation	7		6	1			
Hartford Fire Ins. Company	7	2	4				1
Intl. Nickel of Canada	7		3		1	2	1
National Steel Corporation	7	2	5				
Norton Simon, Inc.	7		4		1	2	
Union Carbide Corporation	7	2	4				1
Woolworth, F.W.	7		6			1	
C I T Financial Corp.	6		2	1		2	1
Celanese Corporation	6		2	1		2	1
City Investing Company	6		5	1			
Deltona Corporation	6		5	1			
First Charter Finance	6		4	2			

T A B L E IX-10  
(Continued)

Common Stock	Other Accounts of						
	All Institutions	50 Largest Bank Trust Departments	Registered Investment Companies of 71 Investment Advisers	Registered Advisers with Largest Registered Investment Companies a/	25 Largest P/L Groups	26 Largest Life Insurance Companies	41 Self- Administered Tax-Exempt b/ Institutions
GAC Corporation	6		3	2			1
INA Corporation	6		4	2			
La. Land & Exploration	6	1	1			2	2
Pepsicola, Inc.	6		3				3
RCA Corporation	6	1	2		1	2	
Syntex Corporation	6		4	2			
Western Union Telegraph	6	1	2	1	2		
American General Ins. Co.	5		3		1		1
Becton, Dickinson & Co.	5		3	1	1		
Houston Lighting & Power	5				3	2	
Kimberly-Clark Corporation	5		2		1	2	
Marcor, Inc.	5	1	3		1		
Northwest Airlines	5		2		1	1	1
Parke, Davis & Company	5		5				
Southern California Edison	5	1		1	1	1	1
U. S. Fidelity & Guaranty	5	1	4				
AMK Corporation	4		3	1			
Alcan Aluminum Ltd.	4		3				1
American Express Company	4		2		1	1	
American Metal Climax	4		2			1	1
AMPEX Corporation	4		3			1	
Carter-Wallace, Inc.	4		2	2			
W. T. Grant Company	4		2				1
Kaiser Steel Company	4		3			1	
McDonnell Douglas	4		1	2	1		
Natomas Company	4		3	1			
Sperry & Hutchinson	4		3	1			
Newmont Mining Corporation	4			1			3
Texas Oil & Gas	4		1	1			2
Teledyne, Inc.	4		3		1		

T A B L E IX-10

(Continued)

Common Stock	All Institutions	50 Largest Bank Trust Departments	Other Accounts of					
			Registered Investment Companies of 71 Investment Advisers	71 Investment Advisers with Largest Registered Investment Companies <u>a/</u>	25 Largest P/L Groups	26 Largest Life Insurance Companies	41 Self- Administered Tax-Exempt <u>b/</u> Institutions	
U.S. Steel Corporation	4		3					
Zapata Norness, Inc.	4		4					1
AMREP Corporation	3		2	1				
American Research & Develop.	3		1				2	
American Standard	3		2	1				
Carnation Company	3	1			1			
Delta Air Lines, Inc.	3	1	2			1	1	
Fluor Corporation Ltd.	3		1	1			1	
Hilton Hotels Corporation	3		3					
Holiday Inns of America	3		1				1	1
Norfolk & Western	3		3					
Northwest Bancorp	3	1	1	1				
Penn Central Corporation	3		1			1		1
Revlon, Incorporated	3	1				1		1
Santa Fe Industries	3	1				2		
Singer Company	3		2			1		
Southern Pacific	3		2	1				
Standard Brands, Inc.	3							
Utah Construction & Mining	3		2				1	2
Ward Foods	3		3					
Allied Chemical Corp.	2		1					1
Atlas Chemical Ind.	2		1				1	
Bendix Corporation	2		1				1	
Benguet Consolidated	2		2					
Brunswick Corporation	2		2					
Cluett, Peabody & Company	2		1				1	
Comm. Satellite Corp.	2		1	1				
Cook Coffee Company	2						1	1
Dayco Corporation	2		1				1	
Digital Equipment Corp.	2		1	1				
Fairchild Camera	2		1	1				

T A B L E IX-10

(Continued)

Common Stock	Other Accounts of				25 Largest P/L Groups	26 Largest Life Insurance Companies	41 Self- Administered Tax-Exempt b/ Institutions
	All Institutions	50 Largest Bank Trust Departments	Registered Investment Companies of 71 Investment Advisers	71 Investment Advisers with Largest Registered Investment Companies a/			
Fairchild Hiller Corp.	2		1	1			
First NB Chicago, Ill	2		1			1	
First NB in Dallas	2			1		1	
Fleetwood Enterprises	2		2				
Fuqua Industries, Inc.	2		1			1	
Gardner-Denver Company	2					2	
General Public Utilities	2		1				1
General Reinsur Corp.	2		2				
Great Western United	2		2				
Gulf & Western Ind.	2		2				
ITE Imperial Corporation	2		1			1	
Illinois Central Ind.	2		2				
International Harvester	2	1					1
Kings Department Stores	2		1				1
Leasco Data Proc. Equip.	2		2				
Louis & Nashville RR	2		2				
McDonald's Corporation	2		2				
Memorex Corporation	2		2				
Metromedia, Inc.	2		1			1	
Middle South Utilities	2		1			1	
National Airlines, Inc.	2		1		1		
Pittsburgh National Bank	2		1			1	
Randolph Computer Corp.	2					2	
A. H. Robins Company, Inc.	2					1	1
Rorer, Wm. H., Inc.	2						2
Joseph Schlitz Brewing Co.	2	1	1				
Southern Railway	2		2				
Spartans Ind. N. Y.	2		1		1		
Trane Company	2	1					1

T A B L E IX-10

(Continued)

Common Stock	Other Accounts of						
	All Institutions	50 Largest Bank Trust Departments	Registered Investment Companies of 71 Investment Advisers	71 Investment Advisers with Largest Registered Investment Companies a/	25 Largest P/L Groups	26 Largest Life Insurance Companies	41 Self- Administered Tax-Exempt b/ Institutions
Trans Union Corporation	2		1			1	
U.S. Freight Company	2		1	1			
U.S. Gypsum Company	2	2					
U.S. Industries	2		2				
University Computing Co.	2		1	1			
Upjohn Company	2				1		1
Valve Corporation of America	2				1	1	
Alexander & Baldwin	1	1					
Allis-Chalmers Mfg.	1		1				
AMFAC Inc.	1				1		
Amerada Hess Corp.	1		1				
American Can Company	1		1				
American Sugar	1			1			
Applied Devices Corp.	1		1				
Arizona Public Service	1			1			
Athlone Industries, Inc.	1		1				
AVNET Inc.	1					1	
Bath Industries	1			1			
Beatrice Foods Company	1		1				
Brush Beryllium Company	1		1				
Bunker Ramo	1		1				
Cal. Western Sts. Life	1				1		
Chris-Craft Industries	1			1			
Citizens & Southern Natl.	1	1					
Clark Equipment Company	1					1	
Collins Radio Company	1		1				
Coronet Industries	1						1
Crocker-Citizens	1		1				
Dayton Corporation	1	1					
Del Monte Corporation	1	1					
Dow Jones & Co., Inc.	1	1					
El Paso Natural Gas	1		1				

T A B L E IX-10

(Continued)

Common Stock	Other Accounts of						
	All Institutions	50 Largest Bank Trust Departments	Registered Investment Companies of 71 Investment Advisers	Registered Advisers with Largest Registered Investment Companies <u>a/</u>	25 Largest P/L Groups	26 Largest Life Insurance Companies	41 Self- Administered Tax-Exempt <u>b/</u> Institutions
Electronic Data Systems	1			1			
Emery Air Freight Corp.	1		1				
Emery Industries, Inc.	1	1					
First National Stores	1		1				
Foremost-McKesson	1			1			
General Dynamics Corp.	1		1				
General Portland Cement	1		1				
General Time Corporation	1		1				
Genesco, Inc.	1		1				
Goodrich, B. F. Company	1		1				
Great Atl & Pac Tea Co.	1		1				
Great Western Finance	1		1				
Guerdon Ind., Inc.	1		1				
Hanover Insurance Company	1					1	
Harvey Hubbell, Inc.	1					1	
Hercules, Inc.	1		1				
Hitco	1			1			
Imperial Group of America	1		1				
International Ind., Inc.	1				1		
International Chemical & Nuc.	1		1				
Interstate Power Co.	1				1		
Jackson Atlantic, Inc.	1			1			
Kaiser Aluminum & Chem.	1		1				
Liggett & Myers Tobacco Co.	1		1				
Lockheed Aircraft	1		1				
Loew's Theatres, Inc.	1		1				
Lone Star Cement Corp.	1		1				
Marion Laboratories	1		1				
McCord Corporation	1						1
Mead Corporation	1		1				
National General Corporation	1		1				
Northrop Corporation	1		1				

T A B L E IX-10

(Continued)

Common Stock	Other Accounts of 71 Investment Advisers						
	All Institutions	50 Largest Bank Trust Departments	Registered Investment Companies of 71 Investment Advisers	with Largest Registered Investment Companies a/	25 Largest P/L Groups	26 Largest Life Insurance Companies	41 Self- Administered Tax-Exempt b/ Institutions
Occidental Petroleum	1	1					
Owens-Corn Fiberglass	1		1				
Oxford Industries	1	1					
Pan Am World Airways	1		1				
Plough, Inc.	1					1	
Recognition Equip., Inc.	1				1		
Seattle-First Natl. Bank	1				1		
St. Regis Paper Company	1		1				
Sun Chemical	1		1				
Sybron Corporation	1	1					
Tidewater Marine	1			1			
Tri-Continental	1			1			
Twentieth Century Fox	1		1				
United Airlines	1		1				
United Utilities	1	1					
Uris Buildings Corp.	1						1
Valley National Bank Ariz.	1					1	
Watkins-Johnson	1		1				
Will Ross, Inc.	1				1		
Positions in Top 50 Percent of List A Portfolios	1,968	403	667	197	209	241	251
All Positions in List A Portfolios	22,865	12,194	4,028	2,892	1,191	1,127	1,433

SOURCE: I-3

a/ This category also includes any registered investment company of these 71 advisers whose combined purchases and sales were less than one million dollars in 1968.

b/ Includes 12 corporate employee-benefit plans, 9 foundations and 20 educational endowments.

TABLE IX-11

SUMMARY OF CONCENTRATION OF COMMON STOCKS IN  
INSTITUTIONAL PORTFOLIOS  
September 30, 1969

Minimum Number of Stocks Needed to Account for a Given Percentage of the Most  
Concentrated Half of Institutional Portfolios

PROPORTION OF MOST CONCENTRATED HALF OF PORTFOLIOS	OTHER ACCOUNTS OF						
	ALL INSTITUTIONS	50 LARGEST BANK TRUST DEPARTMENTS	LARGEST REGISTERED INVESTMENT COMPANIES OF 71 INVESTMENT ADVISERS	OTHER ACCOUNTS OF 71 INVESTMENT ADVISERS WITH LARGEST REGISTERED INVESTMENT COMPANIES <u>a/</u>	25 LARGEST PROPERTY & LIABILITY INSURANCE GROUPS	26 LARGEST LIFE INSURANCE COMPANIES	41 LARGEST SELF-ADMINISTERED TAX-EXEMPT INSTITUTIONS <u>b/</u>
10	2	1	2	2	1	2	2
20	3	2	5	3	3	4	3
30	6	3	9	6	4	6	5
40	8	4	15	8	6	8	7
50	12	6	24	12	8	11	10
60	19	8	36	16	13	17	14
70	31	11	51	24	19	25	22
80	56	18	75	37	28	37	32
90	100	33	111	56	45	59	50
100	232	69	178	76	66	83	75

SOURCE: Table 10

a/ This category also includes any registered investment company of these 71 advisers whose combined purchases and sales were less than one million dollars in 1968.

b/ Includes 12 corporate employee-benefit plans, 9 foundations and 20 educational endowments.

TABLE IX-12

## MARKET RATIO, PORTFOLIO RATIO AND CONCENTRATION INDEX FOR LIST Z STOCKS

September 30, 1969

COMPANY	Market Ratio	Portfolio Ratio	Concentration Index
	(Proportion of Total Value of List Z Stocks) (1)	(Proportion of All Institutional Holdings of List Z Stocks) (2)	(Ratio of Col. (2) to Col. (1)) (3)
Intl. Business Mach.	0.13426	0.18447	1.37399
Amer. Tel. & Tel.	0.09512	0.03081	0.32386
Gen. Motors	0.07254	0.04951	0.68260
Standard Oil N. J.	0.05092	0.05097	1.00101
Eastman Kodak	0.04054	0.05317	1.31155
Sears, Roebuck & Co.	0.03640	0.05176	1.42213
Texaco, Inc.	0.02846	0.03170	1.11399
General Electric Co.	0.02660	0.02828	1.06318
Xerox Corporation	0.02650	0.04333	1.63516
Gulf Oil Corp.	0.02382	0.03870	1.62452
Minn. Mining & Manufac.	0.02031	0.02158	1.06241
Mobil Oil Corp.	0.01887	0.02101	1.11348
Dupont	0.01836	0.01326	0.72208
Stand. Oil of Calif.	0.01633	0.01653	1.01184
Ford Motor Co.	0.01620	0.02812	1.73575
Avon Products, Inc.	0.01521	0.02318	1.52358
Polaroid Corp.	0.01460	0.02255	1.54442
Procter & Gamble Co.	0.01365	0.01508	1.10465
Standard Oil Indiana	0.01319	0.01434	1.08766
Merck & Co.	0.01179	0.01915	1.62448
Intl. Tel. & Tel.	0.01179	0.01374	1.16618
Gen. Tel. & Electronic	0.01172	0.00751	0.64093
Amer. Home Prod.	0.01002	0.01113	1.11023
Intl. Nickel of Canada	0.00937	0.00906	0.96669
RCA Corp.	0.00905	0.00609	0.67215
Penney, J. C. Company	0.00870	0.01107	1.27230
Westinghouse Electric	0.00764	0.00941	1.23169
Phillips Petroleum	0.00719	0.00629	0.87477
Goodyear Tire & Rubber	0.00683	0.00891	1.30455
Pac. Gas & Elec.	0.00659	0.00496	0.75267
Chrysler Corp.	0.00615	0.00697	1.13344
Intl. Paper Co.	0.00566	0.00780	1.37624
Litton Industries Inc.	0.00418	0.00428	1.02417
Woolworth, F. W.	0.00365	0.00255	0.69905
Consolidated Edison N. Y.	0.00357	0.00040	0.11325
Singer Co.	0.00335	0.00312	0.93138
Schering Corp.	0.00309	0.00385	1.24718
TRW Inc.	0.00301	0.00411	1.36699

TABLE IX-12  
(Continued)

MARKET RATIO, PORTFOLIO RATIO AND CONCENTRATION INDEX FOR LIST Z STOCKS  
September 30, 1969

COMPANY	Market Ratio	Portfolio Ratio	Concentration Index
	(Proportion of Total Value of List Z Stocks) (1)	(Proportion of All Institutional Holdings of List Z Stocks) (2)	(Ratio of Col. (2) to Col. (1)) (3)
Beatrice Foods Co.	0.00299	0.00195	0.65111
Celanese Corp.	0.00290	0.00451	1.55591
Halliburton Co.	0.00287	0.00359	1.24872
Courtaulds, Ltd.	0.00278	0.0	0.0
CPC International Inc.	0.00265	0.00177	0.66739
Kimberly-Clark Corp.	0.00265	0.00330	1.24565
Houston Lighting & Pow.	0.00261	0.00423	1.62191
Coastal States Gas Prod.	0.00257	0.00333	1.29887
Natl. Steel Corp.	0.00243	0.00329	1.35354
Great Atl. & Pac. Tea Co.	0.00242	0.00106	0.43688
Carnation Co.	0.00240	0.00132	0.54889
Amer. Metal Climax	0.00240	0.00162	0.67690
Middle South Utilities	0.00237	0.00408	1.72035
Mc Donnell Douglas	0.00235	0.00123	0.52461
Upjohn Co.	0.00231	0.00343	1.48066
United Utilities	0.00213	0.00214	1.00280
Pac. N.W. Bell Tel.	0.00211	0.00004	0.02011
Newmont Mining Corp.	0.00210	0.00234	1.11403
Stand. Brands Inc.	0.00207	0.00174	0.84463
City Investing Co.	0.00202	0.00194	0.96242
Kaiser Aluminum & Chem.	0.00200	0.00180	0.90088
Owens-Corn Fiberglass	0.00196	0.00190	0.96907
St. Regis Paper Co.	0.00192	0.00142	0.73708
Tri-Continental	0.00188	0.00025	0.13356
Bendix Corporation	0.00181	0.00158	0.87153
El Paso Natural Gas	0.00171	0.00039	0.22793
Ampex Corp.	0.00166	0.00268	1.61542
Madison Fund Inc.	0.00162	0.00005	0.03036
May Dept. Stores	0.00147	0.00180	1.22116
Hilton Hotels Corp.	0.00147	0.00163	1.10833
Long Island Lighting	0.00146	0.00129	0.88161
Winn-Dixie Stores Inc.	0.00142	0.00014	0.09567
Northwest Bancorp	0.00138	0.00156	1.13607
United Fruit Co.	0.00137	0.00002	0.01197
Amer. Research & Devel.	0.00136	0.00178	-1.30432
Skyline Corp.	0.00135	0.00016	0.11854
Clark Equipment Co.	0.00132	0.00136	1.03424
Freeport Sulphur Co.	0.00124	0.00108	0.87183
Trane Company	0.00115	0.00206	1.79377
Rorer, Wm. H., Inc.	0.00113	0.00015	0.13459
Del Monte Corp.	0.00110	0.00082	0.74076
Diamond Shamrock Corp.	0.00105	0.00063	0.59787

TABLE IX-12  
(Continued)

MARKET RATIO, PORTFOLIO RATIO AND CONCENTRATION INDEX FOR LIST Z STOCKS

September 30, 1969

COMPANY	Market Ratio	Portfolio Ratio	Concentration Index
	(Proportion of Total Value of List Z Stocks) (1)	(Proportion of All Institutional Holdings of List Z Stocks) (2)	(Ratio of Col. (2) to Col. (1)) (3)
Genesco Inc.	0.00104	0.00053	0.51413
Mc Intyre Porcupine Mn.	0.00103	0.00010	0.10018
Trans Union Corp.	0.00101	0.00078	0.77619
Trans World Airlines	0.00097	0.00142	1.46216
Natl. Airlines Inc.	0.00095	0.00165	1.73505
Will Ross Inc.	0.00088	0.00084	0.95214
Ligg. & Myers Tob. Inc.	0.00088	0.00026	0.29907
Hart Schaffner & Marx	0.00087	0.00060	0.69131
Fluor Corporation Ltd.	0.00083	0.00076	0.91420
Gardner-Denver Co.	0.00082	0.00095	1.15232
Metro-Goldwyn-Mayer	0.00081	0.00021	0.26240
Cluett, Peabody & Co.	0.00080	0.00067	0.84167
Brown Shoe Co., Inc.	0.00079	0.00025	0.32193
Tampa Electric Co.	0.00077	0.00112	1.45702
Roan Selection Trust	0.00074	0.00001	0.01749
Carter-Wallace, Inc.	0.00073	0.00029	0.39817
Louis & Nashville RR	0.00069	0.00029	0.41930
Deltona Corp.	0.00069	0.00074	1.07896
Lone Star Cement Corp.	0.00068	0.00092	1.35479
Emery Air Freight Corp.	0.00068	0.00064	0.94688
Beckman Instruments	0.00065	0.00087	1.32972
Schenley Industries	0.00065	0.00002	0.02522
U. S. Freight Co.	0.00065	0.00089	1.36885
Intl. Industries Inc.	0.00063	0.00069	1.08871
Fuqua Industries Inc.	0.00062	0.00046	0.75195
Northrop Corp.	0.00060	0.00089	1.48851
Westcoast Trans.	0.00060	0.00002	0.04147
Arizona Public Service	0.00059	0.00042	0.71124
Grand Union Co.	0.00059	0.00043	0.73032
Hammermill Paper Co.	0.00058	0.00054	0.93023
Amrep Corporation	0.00057	0.00029	0.50835
Adams Express Co.	0.00055	0.00004	0.06966
Amer. District Tel. Co.	0.00054	0.00026	0.47478
Uris Buildings Corp.	0.00053	0.00020	0.38158
Emporium Capwell Co.	0.00053	0.00021	0.39965
Utah Power & Light	0.00053	0.00032	0.60405
Cook Coffee Co.	0.00052	0.00018	0.35636
Itek Corporation	0.00051	0.00033	0.64435
Hollinger Mines Ltd.	0.00051	0.00001	0.02340
Cont. Airlines	0.00050	0.00019	0.38783
Texas Oil & Gas	0.00049	0.00052	1.04903

TABLE IX-12  
(Continued)

MARKET RATIO, PORTFOLIO RATIO AND CONCENTRATION INDEX FOR LIST Z STOCKS

September 30, 1969

COMPANY	Market Ratio	Portfolio Ratio	Concentration Index
	(Proportion of Total Value of List Z Stocks) (1)	(Proportion of All Institutional Holdings of List Z Stocks) (2)	(Ratio of Col. (2) to Col. (1)) (3)
United Corp.	0.00048	0.00019	0.39169
Cannon Mills Co.	0.00045	0.00003	0.07060
Natl. Can Corp.	0.00044	0.00037	0.83166
Revere Copper & Brass	0.00044	0.00031	0.70129
Sanders Associates	0.00042	0.00044	1.03275
Ametek, Inc.	0.00039	0.00022	0.56766
Denver & Rio Grde Western	0.00039	0.00000	0.00608
Anderson, Clayton & Co.	0.00038	0.00011	0.29652
Hoover Ball & Bearing	0.00037	0.00006	0.16305
Metromedia, Inc.	0.00037	0.00039	1.05907
Sunshine Mining Co.	0.00035	0.00001	0.03802
Southland Royalty Co.	0.00035	0.00008	0.22801
Mallinckrodt Chem. Wrks.	0.00034	0.00017	0.48035
Gen. Portland Cement	0.00034	0.00043	1.24478
Premier Indust. Corp.	0.00034	0.00007	0.21339
Natl. Tea Co.	0.00034	0.00003	0.07819
Hitco	0.00033	0.00023	0.70670
Mid Cont. Telephone	0.00033	0.00004	0.12805
Tidewater Marine Serv.	0.00033	0.00011	0.33755
Ward Foods	0.00032	0.00030	0.94030
Pittway Corp.	0.00031	0.00002	0.06815
Sonoco Products Co.	0.00031	0.00002	0.06447
Leaseway Transp. Corp.	0.00031	0.00007	0.23408
Great Lakes Paper Co.	0.00030	0.00000	0.00156
Phillips-Van Heusen	0.00030	0.00010	0.33087
Amer. Sugar	0.00030	0.00016	0.53777
Federal Co.	0.00030	0.00012	0.39715
Williamhouse-Regency	0.00030	0.00006	0.18822
Potter Instrument Co.	0.00030	0.00003	0.10501
Ludlow Corp.	0.00030	0.00024	0.79491
Reichhold Chemicals	0.00029	0.00000	0.00705
Equitable Gas Co.	0.00029	0.00014	0.46652
Filtrol Corp.	0.00029	0.00002	0.06336
UMC Industries Inc.	0.00029	0.00007	0.22689
Microdot Inc.	0.00029	0.00002	0.07204
Central Del Rio Oils	0.00028	0.00000	0.00212
Kings Dept. Stores	0.00027	0.00022	0.79816
Ferro Corporation	0.00026	0.00023	0.85463
Lukens Steel Co.	0.00026	0.00002	0.06116
Interstate Power Co.	0.00025	0.00007	0.28212
Lance Inc.	0.00025	0.00008	0.30540
Riviana Foods Inc.	0.00025	0.00002	0.08992

TABLE IX-12  
(Continued)

MARKET RATIO, PORTFOLIO RATIO AND CONCENTRATION INDEX FOR LIST Z STOCKS

September 30, 1969

COMPANY	Market Ratio (Proportion of Total Value of List Z Stocks) (1)	Portfolio Ratio (Proportion of All Institutional Holdings of List Z Stocks) (2)	Concentration Index (Ratio of Col. (2) to Col. (1)) (3)
Ambac Corporation	0.00025	0.00017	0.67907
Mountain Fuel Supply	0.00024	0.00010	0.42364
Kearney & Trecker Co.	0.00024	0.00027	1.12233
Iowa Electric Lt. & Pwr.	0.00023	0.00004	0.16017
Petrolite Corp.	0.00023	0.00002	0.09297
Kennametal	0.00022	0.00006	0.28571
Burndy Corporation	0.00022	0.00017	0.74930
Resorts Intl., Inc.	0.00022	0.0	0.0
Russ Togs	0.00022	0.00016	0.73013
Albertsons, Inc.	0.00022	0.00001	0.05274
Peter Paul, Inc.	0.00022	0.00000	0.01884
Granite City Steel	0.00021	0.00002	0.07347
Fairmont Foods Co.	0.00021	0.00007	0.34051
Teleprompter Corp.	0.00020	0.00017	0.81323
Wesco Financial Corp.	0.00020	0.00012	0.60888
N.Y. & Honduras Ros. Mng.	0.00020	0.00004	0.20204
Giant Food-A	0.00020	0.00007	0.36946
Hammond Corporation	0.00020	0.00008	0.38945
First National Stores	0.00020	0.00012	0.60339
Eastern Utilities	0.00020	0.00005	0.26037
Resorts Intl., Inc. A	0.00019	0.00011	0.58305
Nekoosa Edwards Paper	0.00019	0.00005	0.26301
Pargas, Inc.	0.00019	0.00007	0.36614
Cone Mills Corp.	0.00019	0.00004	0.23807
Peterson Howel Heather	0.00019	0.00014	0.76815
Western Pacific RR	0.00019	0.00004	0.20241
Suburban Propane Gas	0.00019	0.00006	0.32252
Florida East Coast Ry.	0.00019	0.00001	0.03309
Maul Bros., Inc.	0.00019	0.00001	0.04126
Arrow Hart, Inc.	0.00019	0.00013	0.68222
McCord Corp.	0.00018	0.00008	0.44119
Western Maryland Ry. Co.	0.00018	0.00003	0.17306
Fed. Resources Corp.	0.00018	0.00000	0.01560
Gulf Resces. & Chem.	0.00018	0.00001	0.05326
Cent. Motors	0.00018	0.00001	0.02880
Livingston Oil	0.00017	0.00001	0.04175
Amerace Esna Corp.	0.00017	0.00005	0.28295
Lehigh Valley Ind.	0.00017	0.00000	0.00044
Goldfield Corp.	0.00017	0.00000	0.02567
Falstaff Brewing Corp.	0.00017	0.00002	0.11364
Swank, Inc.	0.00016	0.00013	0.76911

TABLE IX-12  
(Continued)

MARKET RATIO, PORTFOLIO RATIO AND CONCENTRATION INDEX FOR LIST Z STOCKS  
September 30, 1969

COMPANY	Market Ratio	Portfolio Ratio	Concentration Index
	(Proportion of Total Value of List Z Stocks) (1)	(Proportion of All Institutional Holdings of List Z Stocks) (2)	(Ratio of Col. (2) to Col. (1)) (3)
Empire State Oil Co.	0.00016	0.00002	0.12044
Macke Company	0.00016	0.00009	0.55858
Esquire, Inc.	0.00016	0.00005	0.34143
Sheller-Globe Corp.	0.00016	0.00003	0.16353
Chicago Musical Instr.	0.00015	0.00002	0.15216
Kysor Industries Corp.	0.00015	0.00007	0.46680
Digitronics Corp.	0.00014	0.00001	0.04667
Conrac	0.00014	0.00005	0.38393
Liberty Loan Corp.	0.00014	0.00004	0.28046
Buffalo Forge Co.	0.00014	0.00001	0.09486
Donaldson Co., Inc.	0.00014	0.00001	0.10318
T I M E DC	0.00014	0.00002	0.16965
Campbell Chib. Mines	0.00014	0.00001	0.05021
Cont. Connector A	0.00014	0.00009	0.65157
Oxford Industries A	0.00013	0.00014	1.06023
Helme Products	0.00013	0.00001	0.07644
Amer. Hoist & Derr. Co.	0.00013	0.00002	0.18716
Coburn Corp. of Am.	0.00013	0.00000	0.00165
MacDonald, E. F. & Co.	0.00013	0.00001	0.11552
Trans-World Financial	0.00012	0.00002	0.18208
Rogers Corporation	0.00012	0.00003	0.27991
U. S. Bank Note	0.00012	0.00008	0.64051
Veeco Instrument, Inc.	0.00012	0.00003	0.25508
Victoreen Leece Nevill	0.00012	0.00001	0.12253
Simmonds Precision Pro.	0.00011	0.00000	0.01615
Keyes Fibre Co. Com	0.00011	0.00002	0.19213
Ohio Brass Co.	0.00011	0.00007	0.65616
United Artists Thea. Ct.	0.00011	0.00003	0.30835
Kroehler Mfg. Co.	0.00011	0.00005	0.42465
Stand Packaging	0.00010	0.00005	0.47901
Rustcraft Greet. Cards	0.00010	0.00002	0.17200
Eurofund, Inc.	0.00010	0.00000	0.04344
Canadian Marconi Co.	0.00010	0.00000	0.00234
Tasty Baking Co. A	0.00010	0.00006	0.56157
Alaska Airlines	0.00010	0.00000	0.00861
Elec. Hose & Rubber Co.	0.00010	0.00002	0.18962
McQuay, Inc.	0.00010	0.00002	0.17406
Pac. Clay Products	0.00009	0.0	0.0
Hines, Ed. Lumber Co. Com	0.00009	0.00008	0.84477
Pettibone Mulliken Corp.	0.00009	0.00001	0.08578
Murray Ohio Mfg.	0.00009	0.00001	0.10182
Cont. Copper & Steel	0.00009	0.00003	0.32072
Kuhlman Co. Com	0.00009	0.00006	0.62977

TABLE IX-12  
(continued)

MARKET RATIO, PORTFOLIO RATIO AND CONCENTRATION INDEX FOR LIST Z STOCKS  
September 30, 1969

<u>COMPANY</u>	Market Ratio  (Proportion of Total Value of List Z Stocks)  (1)	Portfolio Ratio  (Proportion of All Institu- tional Holdings of List Z Stocks)  (2)	Concentration Index  (Ratio of Col. (2) to Col. (1))  (3)
Kalvar Corp.	0.00009	0.00005	0.58930
Giant Portland Cement	0.00009	0.00001	0.07381
Monarch Machine Tool	0.00009	0.00003	0.31298
Craddock Terry Shoe	0.00009	0.00002	0.24005
Amer Furniture Co., Inc.	0.00009	0.00002	0.26370
Globe-Union Inc.	0.00009	0.00001	0.14506
Unit Park City Mines	0.00009	0.00000	0.00093
Maremont Corporation	0.00009	0.00000	0.03440
Aguirre Co.	0.00008	0.00005	0.55981
Microwave Associates	0.00008	0.00002	0.29547
Parker Pen	0.00008	0.00003	0.32037
Thriftmart Inc. A	0.00008	0.00002	0.18976
Garrett Freight Lines	0.00008	0.0	0.0
Mays, J.W. Inc.	0.00008	0.00001	0.18127
Mansfield Tire & Rub	0.00008	0.00002	0.24104
Peel-Elder Ltd	0.00008	0.00001	0.10042
Thalhimer Bros Com	0.00008	0.00001	0.07551
Great Northern Iron Or	0.00008	0.00003	0.41763
Whitchall Electronics	0.00008	0.00000	0.06151
Nestle-Le Mur Co	0.00008	0.00000	0.00230
Endicott Johnson	0.00008	0.00004	0.56739
Dallas Airmotive Inc.	0.00008	0.00003	0.39714
Iroquois Industries	0.00007	0.00001	0.11635
Ranchers Explor & Dev	0.00007	0.00004	0.52719
Horn & Hardart Co.	0.00007	0.00001	0.17060
Lee Way Mtr Frght Inc.	0.00007	0.00000	0.05338
Rexach Construction Co.	0.00007	0.00001	0.08503
Crown Central Petr	0.00007	0.00000	0.00536
Cook Electric Co.	0.00007	0.00000	0.04690
National Realty Inv	0.00007	0.00003	0.50438
Diversey Corporation	0.00007	0.00003	0.42179
Mac Andrews & Forbes	0.00007	0.00001	0.12757
Cook Paint & Varnish	0.00007	0.00001	0.09296
Intl Systems & Controls	0.00007	0.00000	0.00261
Bates Mfg Co.	0.00007	0.00000	0.02310
Trans-Lux Corp.	0.00007	0.00001	0.16858
Wurlitzer Co.	0.00007	0.00002	0.32961
Hoffman Electronics	0.00006	0.00000	0.03471
Leonard Refineries	0.00006	0.00000	0.07610
NMS Industries	0.00006	0.00002	0.37129
Forest Laboratories	0.00006	0.00002	0.40762

TABLE IX-12  
(continued)

MARKET RATIO, PORTFOLIO RATIO AND CONCENTRATION INDEX FOR LIST Z STOCKS  
September 30, 1969

COMPANY	Market Ratio	Portfolio Ratio	Concentration Index
	(Proportion of Total Value of List Z Stocks) (1)	(Proportion of All Institutional Holdings of List Z Stocks) (2)	(Ratio of Col. (2) to Col. (1)) (3)
Kavanau Real Estate	0.00006	0.00000	0.00395
Pioneer Plastics Corp.	0.00006	0.00000	0.00038
Tobin Packing Co.	0.00006	0.00002	0.35543
Movie Star, Inc.	0.00006	0.00000	0.06599
Bergstrom Paper Co A	0.00006	0.00001	0.17409
Shop Rite Foods Inc.	0.00005	0.00001	0.18777
Tubos Mexico	0.00005	0.0	0.0
Yardney Electric	0.00005	0.00000	0.02383
Lewis Business Forms	0.00005	0.00000	0.03675
Hubinger Co Com	0.00005	0.00001	0.29372
Shatterproof Glass Cor	0.00005	0.0	0.0
Barnwell Industries	0.00005	0.00000	0.00126
Lodge & Shipley Co.	0.00005	0.00000	0.00113
Southwestern Drug Corp.	0.00005	0.00001	0.19452
Loft Candy Corp.	0.00004	0.00000	0.00046
Seeman Bros. Inc.	0.00004	0.00001	0.23365
Trinity Industries Inc.	0.00004	0.00001	0.26528
Stand Products Co.	0.00004	0.00000	0.01138
SEM Corp	0.00004	0.0	0.0
Plymouth Rubber A	0.00004	0.0	0.0
Frantz Mfg Co Com	0.00004	0.00001	0.26468
Arrow Electronics	0.00004	0.00000	0.10458
Associated Truck Lines	0.00004	0.00000	0.00947
Westbury Fashions	0.00004	0.00001	0.14321
Puritan Fashions Corp.	0.00004	0.00000	0.00001
Spector Industries	0.00004	0.00002	0.48723
Southern Airways Inc.	0.00004	0.00000	0.10703
Aero-Flow Dynamics	0.00003	0.00000	0.01560
Union Investment Co.	0.00003	0.00000	0.13799
Jaeger Machine	0.00003	0.00000	0.03557
First Mississippi Corp.	0.00003	0.0	0.0
Compo Industries Inc.	0.00003	0.00000	0.11838
Godfrey Co Com	0.00003	0.00000	0.07714
Warshow H & Sons Inc. A	0.00003	0.00000	0.01058
Computer Usage Co Inc	0.00003	0.00001	0.33528
Alliance Tire & Rubber	0.00003	0.00000	0.00290
Hart Carter Co.	0.00003	0.00000	0.00768
Greer Hydraulics, Inc.	0.00003	0.0	0.0
Electr Corp of Amer	0.00003	0.00000	0.01117
Washburn Wire Co Com	0.00003	0.00001	0.44992
General Box Co	0.00003	0.00000	0.13759
New Hampshire Ball Br	0.00003	0.00006	2.09436

TABLE IX-12  
(continued)

MARKET RATIO, PORTFOLIO RATIO AND CONCENTRATION INDEX FOR LIST Z STOCKS  
September 30, 1969

COMPANY	Market Ratio	Portfolio Ratio	Concentration Index
	(Proportion of Total Value of List Z Stocks) (1)	(Proportion of All Institutional Holdings of List Z Stocks) (2)	(Ratio of Col. (2) to Col. (1)) (3)
Valspar Corp.	0.00003	0.00000	0.00005
Emenee Corporation	0.00003	0.00000	0.18955
Bethlehem Corp.	0.00003	0.00000	0.00438
Pacific Vegetable Oil	0.00002	0.00000	0.12502
Wyomissing Corp.	0.00002	0.0	0.0
Plymouth Rubber B	0.00002	0.00000	0.00315
Midwest Rubber Reclaim	0.00002	0.0	0.0
Zion Foods Corp	0.00002	0.00000	0.00051
Amer Self Serv Stores	0.00002	0.0	0.0
Evans Aristocrat Ind	0.00002	0.0	0.0
Acme Electric Corp Com	0.00002	0.00000	0.09547
Bogue Electric Mfg Co	0.00001	0.00000	0.00077
Assoc Food Stores	0.00001	0.0	0.0
Vacu Dry Company	0.00001	0.00000	0.03186
Applied Research Inc. 1	0.00001	0.00000	0.12950
Andrea Radio Corp.	0.00001	0.0	0.0
Flo Tronics Inc	0.00001	0.00000	0.10120
Ram Tool Corp Com	0.00001	0.0	0.0
Railweight Inc.	0.00001	0.00000	0.00353
Supronics Corp.	0.00001	0.0	0.0
Handmacher Vogel Inc.	0.00001	0.00000	0.01687
Crescent Technol Corp.	0.00001	0.0	0.0
North Amer Resources	0.00001	0.00000	0.00275
Hexagon Laboratories	0.00001	0.0	0.0
Hydromatics, Inc.	0.00000	0.0	0.0
Chesapeake Instrument	0.00000	0.00001	1.22359
AMT Corp Del Com	0.00000	0.00000	0.22331
Allstate Industries	0.00000	0.0	0.0
A L D Inc	0.00000	0.00000	0.01148

TABLE IX-13

INSTITUTIONAL COMMON STOCK HOLDINGS IN LIST Z<sup>1/</sup>

<u>Company</u>	<u>Percent of Outstanding Common Stock held by IIS Institutions</u>	<u>Percent of Outstanding Common Stock Publicly traded in 1968</u>	<u>Percent of 1968 Volume held by Institutions</u>	<u>Market Value (\$ mil)</u>	<u>Exchange Listing</u>
International Business Machine	43.1	5.6	771.1	39,053	NYSE (L)
American Telephone & Telegraph	10.2	4.6	221.6	27,669	NYSE (L)
General Motors	21.4	3.4	621.1	21,100	NYSE (L)
Standard Oil of New Jersey	31.5	5.9	536.0	14,812	NYSE (L)
Eastman Kodak	41.0	4.2	978.8	11,793	NYSE (L)
Sears, Roebuck & Company	45.3	2.9	1,559.7	10,587	NYSE (L)
Texaco, Inc.	34.6	1.7	2,072.8	8,278	NYSE (L)
General Electric Company	33.3	8.3	399.9	7,737	NYSE (L)
Xerox Corporation	52.8	6.0	878.5	7,707	NYSE (L)
Gulf Oil Corporation	51.0	4.0	1,274.2	6,929	NYSE (L)
Minn. Mining & Manufacturers	33.2	5.1	645.1	5,909	NYSE (L)
Mobil Oil Corporation	35.0	7.0	500.1	5,488	NYSE (L)
DuPont	22.6	6.1	367.3	5,340	NYSE (L)
Standard Oil of Calif.	31.7	7.4	426.0	4,751	NYSE (L)
Ford Motor Company	54.2	8.4	645.6	4,712	NYSE (L)
Avon Products, Inc.	47.6	8.6	554.3	4,426	NYSE (L)
Polaroid Corporation	48.3	32.2	149.9	4,247	NYSE (L)
Procter & Gamble Co.	34.5	4.7	736.9	3,971	NYSE (L)
Standard Oil of Indiana	33.9	6.1	557.9	3,836	NYSE (L)
Merck & Company	50.9	7.6	671.1	3,429	NYSE (L)
International Tel. & Tel.	36.7	11.8	311.1	3,428	NYSE (L)
Gen. Tel. & Electronic	20.0	7.1	282.1	3,409	NYSE (L)
American Home Products	35.0	7.8	448.3	2,916	NYSE (L)
International Nickel of Canada	30.3	9.2	329.3	2,725	NYSE (L)

TABLE IX-13  
(Continued)

INSTITUTIONAL COMMON STOCK HOLDINGS IN LIST 2<sup>1/</sup>

<u>Company</u>	<u>Percent of Outstanding Common Stock held by IIS Institutions</u>	<u>Percent of Outstanding Common Stock Publicly traded in 1968</u>	<u>Percent of 1968 Volume held by Institutions</u>	<u>Market Value (\$ mil)</u>	<u>Exchange Listing</u>
RCA Corporation	20.9	15.1	138.7	2,634	NYSE (L)
Penney, J. C. Company	39.7	6.1	650.5	2,531	NYSE
Westinghouse Electric	38.6	12.3	314.5	2,223	NYSE (L)
Phillips Petroleum	27.5	7.8	353.8	2,091	NYSE
Goodyear Tire & Rubber	40.8	5.0	814.5	1,987	NYSE
Pacific Gas & Electric	23.6	4.3	551.5	1,916	NYSE
Chrysler Corporation	35.5	34.8	102.0	1,788	NYSE (L)
International Paper Company	43.3	26.8	161.8	1,648	NYSE
Litton Industries, Inc.	32.8	37.0	88.6	1,217	NYSE
Woolworth, F. W.	22.6	19.2	118.0	1,062	NYSE
Consolidated Edison N. Y.	3.6	10.4	34.3	1,038	NYSE
Singer Company	29.3	22.0	133.1	974	NYSE
Teledyne Inc.	27.6	39.4	70.1	906	NYSE
Schering Corporation	39.3	7.6	518.9	898	NYSE
TRW Inc.	42.8	15.0	284.4	876	NYSE
Beatrice Foods Company	20.3	3.4	550.5	869	NYSE
Celanese Corp.	48.8	27.8	175.3	844	NYSE
Halliburton Company	42.4	9.5	447.0	836	NYSE
CPC International Inc.	20.9	15.4	135.6	771	NYSE
Kimberly-Clark Corp.	39.0	13.4	290.6	770	NYSE
Houston Lighting & Power	50.7	8.7	579.6	759	NYSE
Coastal State Gas Prod	44.8	9.7	463.4	747	NYSE
National Steel Corporation	42.6	21.2	200.6	706	NYSE
Great Atlantic & Pacific Tea Co.	13.6	14.9	91.2	704	NYSE
Carnation Company	17.2	3.0	578.3	699	AMEX

TABLE IX-13 <sup>1/</sup>  
(continued)

<u>Company</u>	<u>Percent of Outstanding Common Stock Held by IIS Institutions</u>	<u>Percent of Outstanding Common Stock Publicly traded in 1968</u>	<u>Percent of 1968 Volume held by Institutions</u>	<u>Market Value (\$ Mil.)</u>	<u>Exchange Listing</u>
American Metal Climax	21.2	11.5	184.7	697	NYSE
Middle South Utilities	54.4	7.0	775.5	689	NYSE
McDonnell Douglas	16.4	53.3	30.7	682	NYSE
Upjohn Company	46.5	15.8	294.2	673	NYSE
Pacific N.W. Bell Tel.	0.7	1.2	54.4	615	AMEX
Standard Brands, Inc.	26.3	9.2	286.5	601	NYSE
Kaiser Aluminum & Chemical	28.2	22.0	128.2	582	NYSE
Owens-Corning Fiberglas	30.2	15.9	189.3	570	NYSE
St. Regis Paper Co.	23.5	42.1	55.9	559	NYSE
Bendix Corporation	27.1	24.1	112.7	527	NYSE
Ampex Corporation	50.4	50.4	100.0	483	NYSE
Continental Telephone	25.5	21.7	117.3	451	NYSE
May Department Stores	38.1	14.0	273.3	429	NYSE
Hilton Hotels Corporation	34.6	32.6	106.1	428	NYSE
Long Island Lighting	27.5	8.1	341.8	425	NYSE
Winn-Dixie Stores, Inc.	3.0	8.8	33.8	412	NYSE
United Fruit Company	0.5	78.2	0.7	400	NYSE
Skyline Corporation	3.9	18.7	20.8	394	NYSE
Clark Equipment Company	32.2	17.1	188.2	383	NYSE
Freeport Sulphur Co.	27.6	35.7	77.2	360	NYSE
Trane Company	55.8	16.4	340.2	334	NYSE
Del Monte Corporation	23.2	9.1	255.8	321	NYSE
Diamond Shamrock Corporation	18.6	33.3	56.0	306	NYSE
Genesco, Inc.	16.1	18.4	87.4	302	NYSE
McIntyre Porcupine Mining	3.1	4.2	74.7	301	NYSE

TABLE IX-13<sup>1/</sup>  
(continued)

<u>Company</u>	<u>Percent of Outstanding Common Stock Held by IIS Institutions</u>	<u>Percent of Outstanding Common Stock Publicly Traded in 1968</u>	<u>Percent of 1968 Volume held by Institutions</u>	<u>Market Value (\$ Mil.)</u>	<u>Exchange Listing</u>
Trans Union Corporation	24.6	20.9	117.6	293	NYSE
Foremost-McKesson	30.6	35.1	87.1	292	NYSE
Trans World Airlines	45.7	58.7	77.9	282	NYSE
National Airlines, Inc.	55.1	51.8	106.2	277	NYSE
Ligg. & Meyers Tob., Inc.	9.3	15.8	58.9	256	NYSE
Hart Schaffner & Marx	21.6	6.3	342.8	253	NYSE
Fluor Corporation, Ltd.	28.4	35.9	79.2	242	NYSE
Gardner-Denver Company	35.9	9.2	390.7	239	NYSE
Metro-Goldwyn Mayer	8.2	69.8	11.7	235	NYSE
Cluett, Peabody & Company	26.3	21.5	122.1	231	NYSE
Brown Shoe Co., Inc.	10.0	3.8	264.1	228	NYSE
Tampa Electric Company	45.5	15.9	287.2	223	NYSE
Carter-Wallace, Inc.	12.9	39.1	32.9	212	NYSE
Lone Star Cement Corp.	42.3	42.5	99.5	198	NYSE
Emery Air Freight Corp.	29.5	15.9	185.8	197	NYSE
Beckman Instruments	41.8	54.0	77.4	190	NYSE
Schenley Industries	0.8	108.9	0.7	190	NYSE
U.S. Freight Co.	44.1	23.1	190.7	189	NYSE
Career Academy, Inc.	19.4	48.1	40.3	186	AMEX
International Industries, Inc.	35.3	51.2	69.0	184	NYSE
Zayre Corporation	33.6	30.8	109.2	180	NYSE
Fuqua Industries, Inc.	23.4	57.5	40.7	179	NYSE
Northrop Corporation	46.3	44.1	105.0	175	NYSE
Arizona Public Service	22.3	23.0	96.7	172	NYSE
Grand Union Company	23.1	38.4	60.3	171	NYSE
Hammermill Paper Co.	29.0	13.9	208.3	168	NYSE
Amrep Corporation	16.0	76.5	20.9	158	AMEX

TABLE IX-13 <sup>1/</sup>  
(continued)

INSTITUTIONAL COMMON STOCK HOLDINGS IN LIST Z

<u>Company</u>	<u>Percent of Outstanding Common Stock held by IIS Institutions</u>	<u>Percent of Outstanding Common Stock Publicly traded in 1968</u>	<u>Percent of 1968 Volume held by Institutions</u>	<u>Market Value (\$ mil)</u>	<u>Exchange Listing</u>
Emporium Capwell Company	12.5	7.7	161.5	155	NYSE
Utah Power & Light	18.9	17.0	111.2	155	NYSE
Itek Corporation	19.8	250.6	7.9	148	NYSE
Hollinger Mines Ltd.	0.7	2.6	28.1	148	AMEX
Cont. Airlines	12.4	65.2	19.0	145	NYSE
Coronet Industries	13.9	10.7	129.4	144	NYSE
National Can Corp.	29.4	53.6	54.8	129	NYSE
Revere Copper & Brass	21.9	17.3	126.5	128	NYSE
Sanders Associates	32.0	125.3	25.5	123	NYSE
Ametek, Inc.	18.0	12.7	141.8	113	NYSE
Anderson, Clayton & Company	9.2	23.8	38.8	111	NYSE
Hoover Ball & Bearing	5.1	11.5	44.5	108	NYSE
Metromedia, Inc.	33.0	45.4	72.8	108	NYSE
Sunshine Mining Co.	1.1	113.5	1.0	103	NYSE
Southland Royalty Co.	8.9	3.2	278.0	101	AMEX
Gen. Portland Cement	38.7	41.8	92.6	99	NYSE
Premier Indust. Corp.	6.6	6.8	98.3	99	NYSE
National Tea Company	2.4	11.5	21.1	99	NYSE
Hitco	22.0	59.6	36.9	97	NYSE
Mid-Cont. Telephone	4.2	5.3	78.2	95	NYSE
Ward Foods	29.5	69.9	42.2	94	NYSE
Pittway Corp.	2.1	31.8	6.7	91	AMEX
Automatic Sprinkler	3.4	136.4	2.5	91	NYSE
Leaseway Trans. Corp.	8.0	22.7	35.4	90	NYSE
Phillips-Van Heusen	10.4	26.0	39.8	88	NYSE
American Sugar	17.5	26.2	66.7	88	NYSE

TABLE IX-13  
(continued)

INSTITUTIONAL COMMON STOCK HOLDINGS IN LIST Z

<u>Company</u>	<u>Percent of Outstanding Common Stock held by IIS Institutions</u>	<u>Percent of Outstanding Common Stock Publicly traded in 1968</u>	<u>Percent of 1968 Volume held by Institutions</u>	<u>Market Value (\$mil.)</u>	<u>Exchange Listing</u>
William-House Regency	17.7	12.7	139.4	87	AMEX
Potter Instrument Co.	3.2	82.8	3.9	87	AMEX
Ludlow Corp.	24.8	25.0	99.3	86	NYSE
Reichhold Chemicals	0.2	33.6	0.7	86	NYSE
Equitable Gas Co.	14.5	18.4	78.8	85	NYSE
Filtrol Corp.	2.0	80.2	2.5	85	NYSE
UMC Industries, Inc.	7.1	77.3	9.2	84	NYSE
Microdot, Inc.	2.2	40.8	5.5	84	NYSE
Kings Dept. Stores	24.8	53.6	46.3	79	NYSE
Ferro Corporation	26.6	14.2	187.3	77	NYSE
Lukens Steel Company	1.9	34.7	5.5	76	NYSE
Interstate Power Company	8.8	12.1	72.7	73	NYSE
Riviana Foods, Inc.	4.7	6.4	72.8	73	NYSE
Ambac Corporation	21.1	31.1	67.9	72	NYSE
Hanes Company	42.7	26.3	162.1	70	NYSE
Kennametal	8.9	11.3	78.8	65	NYSE
Russ Togs	22.7	37.4	60.7	64	NYSE
Peter Paul, Inc.	0.6	8.5	6.9	63	NYSE
Granite City Steel	2.3	59.7	3.8	62	NYSE
Roper Corporation	28.4	44.0	64.6	61	NYSE
Fairmont Foods Co.	10.6	28.6	37.1	61	NYSE
Teleprompter Corp.	25.8	115.3	22.4	59	AMEX
NY & Honduras Ros. Mng.	6.3	33.8	18.6	58	NYSE
Giant Food A	11.3	56.3	20.5	58	AMEX
Hammond Corporation	12.1	83.4	14.5	58	NYSE
First National Stores	18.8	61.3	30.7	58	NYSE

TABLE IX-13  
(continued)

INSTITUTIONAL COMMON STOCK HOLDINGS IN LIST Z <sup>1/</sup>

	Percent of Outstanding Common Stock held by IIS Institutions	Percent of Outstanding Common Stock Publicly traded in 1968	Percent of 1968 Volume held by Institutions	Market Value (\$mil.)	Exchange Listing
Daylin.	25.0	104.6	23.9	56	AMEX
Cone Mills Corp.	7.5	21.3	35.1	55	NYSE
Ehrenreich Photo Opt.	18.5	63.4	29.1	55	AMEX
Suburban Propane Gas	10.0	28.4	35.3	54	NYSE
Maul Bros. Inc.	1.3	23.7	5.4	54	AMEX
McCord Corp.	13.7	28.3	48.5	52	NYSE
Bundy Corporation	23.3	43.7	53.4	51	AMEX
Fed. Resources Corp.	0.5	72.2	0.7	51	AMEX
Gulf Resces. & Chem.	1.7	50.4	3.3	51	NYSE
Cont. Motors	1.9	15.6	11.9	51	NYSE
Livingston Oil	1.3	126.1	1.0	51	NYSE
Amerace Esna Corp.	9.0	27.4	32.8	49	NYSE
Falstaff Brewing Corp.	3.5	81.6	4.3	48	NYSE
Swank, Inc.	24.0	62.2	38.6	47	NYSE
Macke Company Cl A	18.6	48.9	37.9	46	NYSE
Esquire, Inc.	10.6	47.0	22.6	45	NYSE
Sheller Globe Corp.	5.1	50.0	10.2	45	NYSE
Chicago Musical Instr.	4.7	49.3	9.6	45	NYSE
Kysor Industries Corp.	14.5	44.2	32.9	43	AMEX
Conrac	12.2	82.5	14.8	41	NYSE
Liberty Loan Corp.	8.8	17.1	51.4	41	NYSE
Buffalo Forge Co.	3.0	34.8	8.5	41	NYSE
Campbell Chib Mines	1.5	116.6	1.3	40	AMEX
Cont. Connector A	20.2	246.3	8.2	39	AMEX
Oxford Industries A	33.0	19.4	169.8	39	NYSE
Helme Products	2.4	23.2	10.3	39	NYSE
Coburn Corp. of Am.	0.1	57.9	0.1	38	NYSE
Chelsea Industries	3.8	24.4	15.4	37	NYSE

Table IX-13  
(continued)

INSTITUTIONAL COMMON STOCK HOLDINGS IN LIST 2<sup>1/</sup>

<u>Company</u>	<u>Percent of Outstanding Common Stock held by IIS Institutions</u>	<u>Percent of Outstanding Common Stock Publicly traded in 1968</u>	<u>Percent of 1968 Volume held by Institutions</u>	<u>Market Value (\$mil.)</u>	<u>Exchange Listing</u>
Rogers Corporation	14.3	30.3	47.1	35	AMEX
Simmonds Precision Pro.	0.5	79.5	0.6	33	NYSE
Ohio Brass Co.	20.4	30.1	67.9	31	AMEX
Kroehler Mfg. Co.	13.2	39.3	33.6	31	NYSE
Stand. Packaging	14.9	132.6	11.2	30	NYSE
Canadian Marconi Co.	0.1	33.1	0.2	30	AMEX
Tasty Baking Co. A	17.5	5.5	319.3	30	AMEX
Alaska Airlines	0.5	89.8	0.6	29	AMEX
Elec. Hose & Rubber Co.	5.9	3.5	166.6	28	AMEX
Murray Ohio Mfg.	3.2	20.2	15.7	27	AMEX
Cont. Copper & Steel	10.0	60.8	16.5	26	AMEX
Giant Portland Cement	2.3	41.2	5.6	26	AMEX
Monarch Machine Tool	10.8	53.2	20.2	26	NYSE
Globe Union Inc.	4.5	47.8	9.5	25	NYSE
Unit Park City Mines	0	67.0	0	25	NYSE
Maremont Corporation	1.1	39.9	2.7	25	NYSE
Aquirre Co.	20.0	28.9	69.2	25	NYSE
Microwave Associates	9.3	220.8	4.2	25	AMEX
Parker Pen	10.6	55.3	19.1	24	NYSE
Thriftmart Inc. A	5.9	24.7	23.9	24	AMEX
Mays, J. W. Inc.	5.6	41.9	13.4	24	NYSE
Mansfield Tire & Rub.	7.5	104.1	7.2	24	AMEX
Peel-Elder Ltd.	3.1	110.3	2.8	23	AMEX
Nestle-Le Nur Co.	0.1	132.3	0.1	23	AMEX
Endicott Johnson	17.6	75.0	23.5	22	NYSE

TABLE IX-13  
(continued)

INSTITUTIONAL COMMON STOCK HOLDINGS IN LIST Z<sup>1/</sup>

<u>Company</u>	<u>Percent of Outstanding Common Stock held by IIS Institutions</u>	<u>Percent of Outstanding Common Stock Publicly traded in 1968</u>	<u>Percent of 1968 Volume held by Institutions</u>	<u>Market Value (\$mil.)</u>	<u>Exchange Listing</u>
Iroquois Industries	3.6	80.4	4.5	22	AMEX
Horn & Hardart Co.	5.3	70.1	7.6	22	AMEX
Crown Central Petr.	0.2	34.8	0.5	21	AMEX
Cook Electric Co.	1.5	34.6	4.2	21	AMEX
Leslie Fay A	11.0	60.3	18.2	21	AMEX
Diversey Corporation	13.1	11.9	110.5	20	AMEX
MacAndrews & Forbes	4.0	118.1	3.4	20	NYSE
Cook Paint & Varnish	2.9	15.3	18.9	20	AMEX
Bates Mfg. Co.	0.7	46.2	1.6	19	NYSE
Trans-Lux Corp.	5.3	138.9	3.8	19	AMEX
Wurlitzer Co.	10.3	43.1	23.8	19	NYSE
Hoffman Electronics	1.1	102.5	1.1	18	NYSE
Leonard Refineries	2.4	39.5	6.0	18	NYSE
NMS Industries	11.5	95.1	12.1	18	AMEX
Inflight Motion Picture	8.5	107.1	7.9	18	AMEX
Forest Laboratories	12.7	134.0	9.5	18	AMEX
Pioneer Plastics Corp.	0	90.6	0	17	AMEX
Tobin Packing Co.	11.1	16.1	68.7	17	NYSE
Movie Star, Inc.	43.7	52.0	83.9	17	AMEX
Conchemco, Inc.	4.6	136.6	3.4	15	AMEX
Barnwell Industries	0	111.4	0	14	AMEX
Lodge & Shipley Co.	0	114.0	0	14	AMEX
Gaylords National Corp.	3.6	115.5	3.1	13	AMEX
Seeman Bros., Inc.	7.3	142.5	5.1	13	AMEX
Stand, Products Co.	0.4	16.2	2.2	12	AMEX

TABLE IX-13<sup>1/</sup>  
(continued)

<u>Company</u>	<u>Percent of Outstanding Common Stock Held by IIS Institutions</u>	<u>Percent of Outstanding Common Stock Publicly Traded in 1968.</u>	<u>Percent of 1968 Volume held by Institutions</u>	<u>Market Value (\$ Mil.)</u>	<u>Exchange Listing</u>
Arrow Electronics	3.3	122.5	2.7	12	AMEX
Westbury Fashions	4.5	137.0	3.3	11	AMEX
Puritan Fashions Corporation	0	87.9	0	10	AMEX
Spector Industries	15.1	80.5	18.8	10	AMEX
Aero-Flow Dynamics	0.5	123.9	0.4	10	AMEX
Jaeger Machine	1.1	51.2	2.2	10	NYSE
Keystone Industries, A	0.5	45.7	1.1	10	AMEX
Compo Industries, Inc.	3.7	120.3	3.1	10	AMEX
Alliance Tire & Rubber	0.1	50.6	0.2	9	AMEX
Originala, Inc.	23.4	80.1	29.2	9	AMEX
Electr. Corp. of America	0.3	68.5	0.5	9	AMEX
New Hampshire Ball Bearing	65.2	56.1	116.1	8	AMEX
Valspar Corporation	0	43.5	0	7	AMEX
Emenee Corporation	5.9	168.4	3.5	7	AMEX
Bethlehem Corporation	0.2	90.1	0.2	7	AMEX
Plymouth Rubber B	0.1	9.5	1.0	6	AMEX
Zion Foods Corporation	0	65.7	0	5	AMEX
Family Record Plan	0.1	99.5	0.1	5	AMEX

<sup>1/</sup> Includes only those NYSE and AMEX listed companies for which 1968 volume data was available.

SOURCE: I-3, Standard and Poor's Corporation

TABLE IX-14

DISTRIBUTION OF INSTITUTIONAL CLASS PORTFOLIOS  
 BY PROPORTION OF HOLDINGS WITH GIVEN CHARACTERISTIC  
 WITHIN SPECIFIED RANGES  
 CHARACTERISTIC  
 EXCHANGE

September 30, 1969

INSTITUTIONAL CLASS	NYSE	AMEX	GTC
Bank Trust Departments	96.829	1.650	1.520
Other Accounts of Investment Advisers	95.972	2.257	1.770
Registered Investment Companies	92.089	5.680	2.231
Property and Liability Insurance Groups	96.411	1.718	1.871
Life Insurance Companies	98.226	0.811	0.963
Self-Administered Corporate Employee Benefit Plans	99.652	0.028	0.320
Self-Administered Foundations	99.995	0.0	0.005
Self-Administered Educational Endowments	95.172	1.780	3.047
All Institutions	96.009	2.385	1.606
List Z Sample	85.396	9.109	5.494

TABLE IX-15  
 DISTRIBUTION OF INSTITUTIONAL CLASS PORTFOLIOS  
 BY PROPORTION OF HOLDINGS WITH GIVEN CHARACTERISTIC  
 WITHIN SPECIFIED RANGES

CHARACTERISTIC  
 INDUSTRY

September 30, 1969

INSTITUTIONAL CLASS	AGRICULTURE	MINING	CONTRACT CONSTRUCTION	MANUFACTURING	TRANSPORTATION, UTILITIES	TRADE	FINANCE, INSURANCE, REAL ESTATE	SERVICES	GOVERNMENT & NOT ELSEWHERE CLASSIFIED
Bank Trust Departments	0.019	2.610	0.076	72.151	12.854	8.402	2.685	1.188	0.017
Other Accounts of Investment Advisers	0.059	1.458	0.141	70.699	15.475	7.593	2.823	1.674	0.079
Registered Investment Companies	0.053	2.966	1.518	64.189	14.132	8.590	4.685	3.856	0.010
Property and Liability Insurance Groups	0.0	1.429	0.173	64.565	20.944	8.883	1.881	2.125	0.0
Life Insurance Companies	0.0	2.297	0.0	71.283	17.888	5.236	3.131	0.165	0.0
Self-Administered Corporate Employee-Benefit Plans	0.059	3.936	0.0	50.208	8.876	34.406	1.413	1.102	0.0
Self-Administered Foundations	0.0	5.293	0.0	79.666	9.696	3.873	0.270	1.202	0.0
Self-Administered Educational Endowments	0.017	3.051	0.046	71.023	13.026	6.134	3.158	3.546	0.0
All Institutions	0.028	2.667	0.373	69.227	13.581	9.327	2.999	1.781	0.016
List Z Sample	0.061	3.333	0.316	59.735	18.422	8.496	4.219	3.636	1.783

SOURCE: I-3

TABLE IX-16  
 DISTRIBUTION OF INSTITUTIONAL CLASS PORTFOLIOS  
 BY PROPORTION OF HOLDINGS WITH GIVEN CHARACTERISTIC  
 WITHIN SPECIFIED RANGES  
 CHARACTERISTIC  
 MANUFACTURING INDUSTRIES  
 September 30, 1969

INSTITUTIONAL CLASS	ORD- NANCE	FOOD	TO- BACCO	TEXTILE	APPAREL	LUMBER	FURNITURE	PAPER	PRINTING	CHEMICALS	PETROLEUM	RUBBER & PLASTICS
Bank Trust Departments	0.0	3.651	0.053	0.106	0.688	0.038	0.218	3.238	0.126	13.159	12.508	2.532
Other Accounts of Investment Advisers	0.0	3.170	0.004	0.018	1.017	0.0	0.247	3.552	0.348	12.803	8.478	1.636
Registered Investment Companies	0.0	4.688	0.246	0.058	0.926	0.009	0.424	6.098	0.269	8.620	5.660	3.659
Property and Liability Insurance Groups	0.0	4.928	0.0	0.024	0.806	0.0	0.110	3.837	0.457	10.694	9.886	3.866
Life Insurance Companies	0.0	3.592	0.0	0.014	1.764	0.0	0.212	7.603	0.032	13.171	9.356	4.331
Self-Administered Corporate Employee-Benefit Plans	0.0	0.728	0.0	0.037	0.045	0.0	0.168	5.100	0.0	11.964	9.727	2.796
Self-Administered Foundations	0.0	4.737	0.0	0.0	0.0	0.0	0.010	3.678	0.0	6.729	15.678	0.154
Self-Administered Educational Endowments	0.0	5.332	0.0	0.209	1.508	0.0	0.520	2.859	0.366	13.573	11.857	3.149
All Institutions	0.0	3.790	0.082	0.080	0.776	0.024	0.255	4.153	0.172	11.939	10.531	2.816
List Z Sample	0.0	5.021	0.230	1.402	1.029	0.024	0.424	3.246	0.286	8.976	8.267	2.040

TABLE IX-16  
(continued)

DISTRIBUTION OF INSTITUTIONAL CLASS PORTFOLIOS  
BY PROPORTION OF HOLDINGS WITH GIVEN CHARACTERISTIC

WITHIN SPECIFIED RANGES

CHARACTERISTIC  
MANUFACTURING INDUSTRIES

September 30, 1970

INSTITUTIONAL CLASS	LEATHER	STONE	PRIMARY METALS	FABRI-CATED METALS	MACHINERY EXCEPT ELECTRICAL <sup>1/</sup>	COMPUTER EQUIPMENT	ELECTRICAL MACHINERY	TRANSPOR-TATION EQUIPMENT	INSTRUMENTS	MISCELLANEOUS MANUFACTURERS
Bank Trust Departments	0.127	0.427	1.361	1.544	2.440	13.487	7.381	7.572	1.402	0.092
Other Accounts of Investment Advisers	0.074	0.915	2.407	2.312	3.255	13.492	8.021	6.645	2.181	0.124
Registered Investment Companies	0.106	1.644	2.430	1.285	2.138	7.081	10.271	5.817	2.528	0.233
Property and Liability Insurance Groups	0.0	0.211	1.835	1.615	3.381	11.814	5.451	5.059	0.591	0.0
Life Insurance Companies	0.0	0.527	2.245	3.197	3.652	7.845	8.005	4.131	1.373	0.233
Self-Administered Corporate Employee-Benefit Plans	0.0	0.255	0.184	1.704	7.491	5.121	2.893	1.463	0.533	0.0
Self-Administered Foundations	0.0	0.121	0.0	1.850	0.0	3.074	4.743	38.351	0.542	0.0
Self-Administered Educational Endowments	0.0	0.342	0.796	0.0	5.685	14.355	3.946	5.664	0.572	0.290
All Institutions	0.099	0.691	1.620	1.610	2.732	11.291	7.686	7.174	1.587	0.122
List Z Sample	0.251	0.606	1.375	1.380	2.710	6.706	6.860	7.285	1.254	0.364

SOURCE: I-3

<sup>1/</sup> Excludes computer equipment.

TABLE IX-17  
 DISTRIBUTION OF INSTITUTIONAL CLASS PORTFOLIOS  
 BY PROPORTION OF HOLDINGS WITH GIVEN CHARACTERISTIC  
 WITHIN SPECIFIED RANGES  
 CHARACTERISTIC  
 NONDIVERSIFIABLE INVESTMENT RISK

September 30, 1969

INSTITUTIONAL CLASS	0.0- 0.29	0.3- 0.49	0.5- 0.69	0.7- 0.799	0.80- 0.849	0.85- 0.899	0.90- 0.949	0.95- 0.999	1.0- 1.49	1.5 AND ABOVE	NOT AVAILABLE	AVERAGE
Bank Trust Departments	0.550	8.338	13.019	3.184	6.445	8.452	7.644	7.053	32.370	10.157	2.786	1.045
Other Accounts of Investment Advisers	0.425	7.165	14.125	5.560	4.360	8.633	5.734	4.502	33.155	13.270	3.070	1.093
Registered Investment Companies	0.319	6.744	14.096	6.533	5.342	5.186	7.538	6.066	28.251	15.077	4.847	1.090
Property and Liability Insurance Groups	0.984	11.745	14.504	6.173	5.497	7.939	5.848	7.857	27.032	9.418	3.004	0.987
Life Insurance Companies	0.117	7.841	14.997	7.278	8.010	8.632	6.521	7.832	22.792	13.339	2.641	1.024
Self-Administered Corporate Employee-Benefit Plans	0.028	5.919	14.696	3.189	3.516	4.900	37.342	9.225	16.025	4.656	0.503	0.950
Self-Administered Foundations	0.100	4.204	11.775	3.806	2.619	5.729	3.823	12.408	49.268	5.754	0.514	1.081
Self-Administered Educational Endowments	0.065	7.354	11.600	5.179	3.528	7.772	8.510	9.354	30.673	11.027	4.939	1.045
All Institutions	0.456	7.853	13.492	4.351	5.891	7.560	8.653	6.977	30.497	11.159	3.110	1.050
List Z Sample	2.684	9.237	12.348	4.020	3.873	9.711	7.081	6.383	25.018	10.917	8.728	1.009

SOURCE: I-3

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TABLE IX-18  
 DISTRIBUTION OF INSTITUTIONAL CLASS PORTFOLIOS  
 BY PROPORTION OF HOLDINGS WITH GIVEN CHARACTERISTIC  
 WITHIN SPECIFIED RANGES

CHARACTERISTIC  
 DEBT - EQUITY RATIO  
 September 30, 1969

INSTITUTIONAL CLASS	0.0	0.0- .05	.06- .10	.11- .15	.16- .20	.21- .30	.31- .40	.41- .50	.51- .59	.60- AND ABOVE	NOT AVAILABLE	AVERAGE
Bank Trust Departments	4.048	7.952	4.730	18.335	8.818	14.264	7.427	6.179	3.053	23.199	1.995	0.499
Other Accounts of Investment Advisers	4.948	10.484	4.599	15.567	8.418	11.663	6.786	4.340	3.016	25.802	4.376	0.512
Registered Investment Companies	6.644	4.718	2.516	11.397	3.921	7.499	8.564	6.582	5.605	37.605	4.948	0.692
Property and Liability Insurance Groups	3.405	7.059	2.925	15.346	9.879	11.752	6.172	7.786	2.680	31.289	1.707	0.585
Life Insurance Companies	5.383	5.651	2.910	11.144	6.547	11.766	12.339	7.210	2.742	31.884	2.425	0.622
Self-Administered Corporate Employee-Benefit Plans	3.042	3.764	1.319	41.086	12.436	10.311	6.462	3.477	1.604	15.864	0.636	0.395
Self-Administered Foundations	4.445	5.912	36.380	5.333	5.829	15.687	4.064	0.640	0.707	21.001	0.0	0.387
Self-Administered Educational Endowments	5.408	11.730	3.909	15.471	8.926	17.057	5.577	6.538	2.289	20.810	2.285	0.458
All Institutions	4.650	7.116	4.533	17.047	7.829	12.376	7.667	6.039	3.435	26.643	2.665	0.540
List Z Sample	5.265	6.932	4.675	11.778	6.510	9.782	7.257	6.062	6.069	29.312	6.358	0.622

SOURCE: I-3

TABLE IX-19  
 DISTRIBUTION OF INSTITUTIONAL CLASS PORTFOLIOS  
 BY PROPORTION OF HOLDINGS WITH GIVEN CHARACTERISTIC

WITHIN SPECIFIED RANGES

CHARACTERISTIC  
 DIVIDEND PAYOUT RATIO

September 30, 1969

INSTITUTIONAL CLASS	0.00- 0.09	0.10- 0.19	0.20- 0.29	0.30- 0.39	0.40- 0.49	0.50- 0.59	0.60- 0.69	0.70- 0.79	0.80- 1.00	NOT AVAILABLE	AVERAGE
Bank Trust Departments	4.325	3.406	2.977	20.978	26.795	19.177	12.686	4.934	0.179	4.542	0.463
Other Accounts of Investment Advisers	4.599	5.530	3.113	19.933	27.374	17.868	11.031	3.784	0.139	6.629	0.447
Registered Investment Companies Property and Liability Insurance Groups	10.149	6.972	2.947	18.051	19.485	16.403	11.826	1.998	0.665	10.506	0.408
Life Insurance Companies Self-Administered Corporate Employee-Benefit Plans	5.287	2.495	1.694	21.844	27.473	18.446	14.158	3.962	0.017	4.623	0.463
Self-Administered Foundations Self-Administered Educational Endowments	4.418	5.675	2.587	16.267	27.851	25.019	11.050	3.361	0.022	3.749	0.456
	5.206	1.093	0.996	14.761	42.856	19.099	13.303	1.248	0.084	1.354	0.474
	4.413	0.952	0.624	4.247	52.645	13.499	21.202	1.981	0.144	0.294	0.500
	3.665	2.129	7.163	19.421	31.066	14.504	13.341	4.672	0.0	4.038	0.460
All Institutions	5.622	4.177	2.824	19.533	26.834	18.597	12.582	3.928	0.257	5.646	0.452
List Z Sample	6.352	3.569	2.858	14.712	21.240	15.821	14.006	8.125	0.927	12.391	0.468

SOURCE: I-3

NOTE: All firms paying dividends and sustaining a net loss were considered to have a dividend payout ratio of one.

TABLE IX-20  
 DISTRIBUTION OF INSTITUTIONAL CLASS PORTFOLIOS  
 BY PROPORTION OF HOLDINGS WITH GIVEN CHARACTERISTIC  
 WITHIN SPECIFIED RANGES

CHARACTERISTIC  
 RETURN ON BOOK VALUE

September 30, 1969

INSTITUTIONAL CLASS	LESS THAN 0%	0- 1.9%	2%- 3.9%	4%- 5.9%	6%- 7.9%	8%- 9.9%	10%- 12.9%	13%- 15.9%	16%- 19.9%	20% AND ABOVE	NOT AVAILABLE	AVERAGE
Bank Trust Departments	0.026	0.055	0.039	0.714	1.493	13.768	22.178	15.937	24.034	18.507	3.250	0.159
Other Accounts of Investment Advisers	0.172	0.059	0.001	0.659	1.856	12.170	21.162	14.881	24.559	18.986	5.494	0.158
Registered Investment Companies	0.130	0.185	0.027	1.323	6.068	15.901	23.546	13.441	14.998	15.521	8.860	0.145
Property and Liability Insurance Groups	0.0	0.0	0.0	0.773	0.842	13.760	24.322	17.550	22.921	16.124	3.708	0.154
Life Insurance Companies	0.070	0.004	0.388	1.871	1.468	16.820	29.364	15.633	18.130	13.568	2.683	0.147
Self-Administered Corporate Employee-Benefit Plans	0.030	0.0	0.0	0.0	0.364	11.653	17.018	36.332	26.139	7.755	0.709	0.147
Self-Administered Foundations	0.0	0.0	0.0	0.0	0.591	13.317	51.881	17.779	9.305	6.945	0.183	0.134
Self-Administered Educational Endowments	0.0	0.009	0.0	0.914	2.480	13.073	17.959	17.665	24.341	21.131	2.430	0.164
All Institutions	0.057	0.074	0.045	0.847	2.379	14.136	23.070	16.369	21.720	16.942	4.362	0.154
List Z Sample	0.279	0.334	0.115	1.345	4.562	17.456	19.581	14.843	16.783	14.517	10.186	0.145

SOURCE: I-3

TABLE IX-21  
 DISTRIBUTION OF INSTITUTIONAL CLASS PORTFOLIOS  
 BY PROPORTION OF HOLDINGS WITH GIVEN CHARACTERISTIC  
 WITHIN SPECIFIED RANGES

CHARACTERISTIC  
 GROWTH OF SALES

September 30, 1969

INSTITUTIONAL CLASS	LESS THAN -5%	-5% TO 0%	0% TO 2.4%	2.5% TO 4.9%	5% TO 7.9%	8% TO 9.9%	10% TO 14.9%	15% TO 19.9%	20% TO 24.9%	25% AND ABOVE	NOT AVAIL- ABLE	AVERAGE
Bank Trust Departments	0.025	0.707	1.052	0.859	23.620	14.719	19.366	21.803	6.124	8.398	3.326	0.137
Other Accounts of Investment Advisers	0.037	0.609	0.445	1.419	22.147	13.148	21.693	19.494	4.936	10.190	5.881	0.140
Registered Investment Companies	0.035	0.867	2.200	2.410	21.329	10.408	19.080	12.518	6.381	15.613	9.160	0.158
Property and Liability Insurance Groups	0.0	0.665	0.340	2.505	29.176	10.848	18.090	19.788	6.085	8.780	3.722	0.134
Life Insurance Companies	0.071	1.075	0.650	0.860	29.608	11.753	23.119	14.287	7.779	7.618	3.180	0.128
Self-Administered Corporate Employee-Benefit Plans	0.0	0.509	0.448	0.815	20.184	41.088	12.718	7.969	9.008	6.541	0.719	0.120
Self-Administered Foundations	0.0	0.0	2.380	0.936	26.703	45.923	8.980	4.334	3.539	7.027	0.178	0.110
Self-Administered Educational Endowments	0.0	0.904	1.375	1.090	24.878	11.680	13.954	22.603	8.888	12.182	2.446	0.147
All Institutions	0.027	0.729	1.208	1.280	23.452	15.170	19.022	18.400	6.286	9.912	4.515	0.140
List Z Sample	0.337	1.409	1.817	3.189	25.803	12.289	16.051	13.747	5.960	8.729	10.670	0.132

SOURCE: I-3

TABLE IX-22  
DISTRIBUTION OF INSTITUTIONAL CLASS PORTFOLIOS  
BY PROPORTION OF HOLDINGS WITH GIVEN CHARACTERISTIC  
WITHIN SPECIFIED RANGES

CHARACTERISTIC  
EARNINGS - PRICE RATIO

September 30, 1969

INSTITUTIONAL CLASS	0.0-	0.01-	0.02-	0.03-	0.04-	0.05-	0.06-	0.07-	0.08-	0.10	NOT AVAILABLE <sup>a/</sup>	AVERAGE
	0.009	0.019	0.029	0.039	0.049	0.059	0.069	0.079	0.099	AND ABOVE		
Bank Trust Departments	0.237	5.587	16.459	8.595	22.047	10.258	10.532	17.070	1.328	5.140	2.748	0.077
Other Accounts of Investment Advisers	0.432	5.768	17.210	11.101	17.096	12.213	8.112	15.750	1.331	6.071	4.914	0.073
Registered Investment Companies	0.335	5.787	11.217	7.840	13.224	16.461	13.928	13.401	1.814	9.224	6.768	0.102
Property and Liability Insurance Groups	0.088	3.146	16.425	8.125	21.003	11.305	10.950	18.348	1.603	6.274	2.733	0.079
Life Insurance Companies	0.505	4.384	11.142	5.799	18.605	19.264	11.622	19.760	1.216	5.948	1.756	0.084
Self-Administered Corporate Employee-Benefit Plans	0.030	1.248	8.187	6.067	45.848	13.830	6.032	14.245	0.181	3.266	1.067	0.064
Self-Administered Foundations	0.0	1.532	4.475	7.646	13.051	11.889	7.026	17.172	0.0	37.075	0.134	0.080
Self-Administered Educational Endowments	0.735	6.942	12.095	12.283	17.346	12.139	9.443	18.642	0.684	8.483	1.208	0.105
All Institutions	0.266	5.236	14.547	8.357	20.576	12.311	10.875	16.289	1.352	6.660	3.530	0.082
List Z Sample	0.654	3.459	10.836	6.997	17.631	11.695	10.709	18.973	1.162	8.858	9.025	0.135

SOURCE: I-3

<sup>a/</sup> Includes firms sustaining a net loss.

TABLE IX-23

SUMMARY OF DIFFERENCES BETWEEN CHARACTERISTIC  
AVERAGES IN INSTITUTIONAL PORTFOLIOS AND RANDOM SAMPLE

September 30, 1969

<u>CHARACTERISTIC</u>	<u>AGGREGATE PORTFOLIO OF ALL INSTITUTIONS</u>		<u>PORTFOLIO OF ALL STOCKS IN RANDOM SAMPLE</u>		<u>IS THERE A STATISTICALLY SIGNIFICANT DIFFERENCE BETWEEN INSTITUTIONAL PORTFOLIOS AND RANDOM SAMPLES <sup>a/</sup></u>
	<u>AVERAGE</u>	<u>VARIANCE</u>	<u>AVERAGE</u>	<u>VARIANCE</u>	
Nondiversifiable Investment Risk	1.050	0.0000	1.009	0.0001	Yes
Debt Equity Ratio	54.000	1.9236	62.200	3.1040	No
Dividend Payout	45.200	0.0571	46.800	0.1983	No
Return on Book Value	15.400	0.0020	14.500	0.0000	Yes
Growth of Sales	14.000	0.0054	13.200	0.0250	No
Earnings-Price Ratio	0.082	0.0024	0.135	0.0082	No

<sup>a/</sup> Significant at 95 percent confidence level.

TABLE IX-24

## SUMMARY OF INSTITUTION PROFILE REGRESSIONS

September 30, 1969

INSTITUTIONS		CHARACTERISTIC							COEFFICIENT OF DETERMINATION (R <sup>2</sup> )
DEPENDENT VARIABLE ZERO	DEPENDENT VARIABLE ONE	DIVIDEND PAYOUT RATIO	RETURN ON BOOK VALUE	DEBT-EQUITY RATIO	GROWTH OF SALES	ASSET SIZE	NON-DIVERSIFIABLE INVESTMENT RISK	a/b/	
Bank Trust Depts.	Registered Investment Companies	++	-*	+	+	-*	++	0.54920* (24.9590)	
Bank Trust Depts.	Other Investment Adviser Accounts	-	-	-	-	-*	+	0.26229* (5.74058)	
Bank Trust Depts.	Property & Liability Insurance Companies	-	+	++	-	-	-	0.17002* (3.52642)	
Bank Trust Depts.	Life Insurance Companies	-	-	++	-	-*	+	0.34431* (7.56393)	
Bank Trust Depts.	Self-Administered Institutions	-	-	-	-	+	-	-0.04044 (0.42341)	
Registered Investment Companies	Property & Liability Insurance Companies	-	++	+	-	++	-*	0.25736* (6.37155)	
Registered Investment Companies	Life Insurance Companies	-	+	+	-	++	-	0.14996* (3.76393)	
Registered Investment Companies	Self-Administered Institutions	+	++	-	-	++	-*	0.33391* (10.02343)	
Registered Investment Companies	Other Investment Adviser Accounts	-	+	-	-	++	+	0.09229* (2.67756)	
Other Investment Adviser Accounts	Property & Liability Insurance Companies	+	-	+	+	+	-*	0.15276* (2.65279)	
Other Investment Adviser Accounts	Life Insurance Companies	+	-	+	+	-	-*	0.09519 (1.98189)	
Other Investment Adviser Accounts	Self-Administered Institutions	+	-	-	+	+	-*	0.21643* (4.22255)	
Property & Liability Insurance Cos.	Life Insurance Companies	-	-	-	-	-	+	-0.01180 (0.90279)	
Property & Liability Insurance Cos.	Self-Administered Institutions	+	+	-*	+	+	+	0.03858 (1.42804)	
Life Insurance Companies	Self-Administered Institutions	++	+	-*	+	+	-	0.17844* (3.35295)	

\* Significant at 95 percent confidence level

a/ Adjusted for degrees of freedom and may, therefore, be negative

b/ Numbers in parenthesis are the F-ratio

TABLE IX-25

SUMMARY OF INSTITUTIONAL ACCOUNT PROFILE REGRESSION  
September 30, 1969

INSTITUTIONS		CHARACTERISTIC						Coefficient of Determination (R <sup>2</sup> ) a/ b/
Dependent Variable Zero	Dependent Variable One	Dividend Payout Ratio	Return on Book Value	Debt Equity Ratio	Growth of Sales	Asset Size	Non- Diversi- fiable Invest- ment Risk	
Bank Trust Administered Foundations and Educational Endowment Accounts	Investment Adviser Administered-- Foundations and Educational Endowment Accounts	-	-	*	+	+	+	0.24307* (3.24790)
Bank Trust Administered Foundations and Educational Endowment Accounts	Self-Administered Foundations and Educational Endowment Accounts	+	-	-	+	+	-	-0.11792 (0.17375)
Investment Adviser Administered-- Foundations and Educational Endow- ment Accounts	Self-Administered Foundations and Educational Endowment Accounts	-	+	-	-	-	-	0.18820* (2.62278)
Bank Trust Administered Employee Benefit Accounts	Investment Adviser Administered-- Employee-Benefit Accounts	-	-*	-	-	-	+	0.12189* (4.53974)
Bank Trust Administered Employee- Benefit Accounts	Self-Administered Employee- Benefit Accounts	+	+	+	*	-	-	0.17358* (6.11082)
Investment Adviser Administered-- Employee-Benefit Accounts	Self-Administered Employee- Benefit Accounts	+	+	+	-	+	-	0.14434* (2.40574)

\* Significant at 95 percent confidence level

a/ Adjusted for degrees of freedom and, therefore, may be negative

b/ Number in parentheses indicates F-ratio

TABLE IX-26

SUMMARY OF BANK TRUST ACCOUNT PROFILE REGRESSIONS  
September 30, 1969

INSTITUTIONS		CHARACTERISTICS						Coefficient of Determination (R <sup>2</sup> ) a/ b/
Dependent Variable Zero	Dependent Variable One	Dividend Payout Ratio	Return on Book Value	Debt Equity Ratio	Growth of Sales	Asset Size	Non- Diversi- fiable Invest- ment Risk	
Bank Trust Accounts Excluding Personal Trust Accounts	Bank Trust Managed Personal Trust	+*	+	-	+	+*	-*	0.08397* (12.51885)
Bank Trust Accounts Excluding Employee-Benefit Plans	Bank Trust Managed Employee- Benefit Plans	-*	+	+*	+	-*	+	0.08659* (12.91303)
Bank Trust Accounts Excluding Foundations and Educational Endowment Accounts	Bank Trust Managed Foundations and Educational Endowment	-	-	+	-	-	-	-0.00435 (0.45593)
Bank Trust Pooled Employee- Benefit Accounts	Bank Trust Employee-Benefit Accounts	+	+	+	+	+	+	0.00602 (1.21505)

\* Significant at 95 percent confidence level

a/ Adjusted for degrees of freedom and, therefore, may be negative

b/ Number in parenthesis indicates F-ratio

