ately introduces some bias into the results, in that the conclusions derived in the analysis may appear to indicate wider and more diversified portfolio transactions than might actually have occurred. Since the analysis is based upon the relative structure of the portfolio, a move to increase the proportionate importance of a single industry necessarily results in relative decreases for all other industries. Secondly, it should not be concluded from the results of this portfolio structure analysis that managements have necessarily adopted as a norm or target structure any of the particular relationships which have emerged. Rather, investment policy in the investment fund industry, as in some other financial institutions, should be looked upon as addressed in a dynamic and changing fashion, and subject to periodic and more or less frequent review, to certain longer run objectives which may, in given economic and market situations, require managements to ignore short term and temporary changes of trends in values and yields.

Against this background, however, a good deal of interest attaches to the comparative static portfolio analysis which is presented here, as indicative of the extent of market and management movements, respectively, and as illustrative of the ways in which the combined pressures from these sources have produced the results at the various benchmark dates already analyzed fully in this chapter.

In the present analysis, the percentage change in the Barron's average appropriate for each industry was accepted as the index of market price change for that industry over the respective time periods employed in the comparisons.[14] All of the Barron's averages employed are based on samples of common stocks and the possibility exists that any one average may not be representative of the funds' holdings in that particular industry. This inherent weakness in the method of analysis is, of course, common to the "averages" or "index" method of market interpretation, and the present results must be evaluated with that in mind.

[14] Barron's averages are dollar figures. They were converted into indexes by dividing the average at the terminal date of the time period considered in each case by the average at the initial date.

TABLE IV–26.—*Common stock holdings of all open-end investment funds, by industrial classification, and changes therein resulting from market price variations and portfolio management decisions, December 1952 to September 1958*

Industry	Percentage distribution of portfolio				1958 market price index [1] (December 1952=100)		Theoretical percentage of portfolio [2] in September 1958	Market factor [3]		Management factor [4]	
	December 1952		September 1958								
	Rank	Percent	Rank	Percent	Rank	Index		Rank	Factor	Rank	Factor
Aircraft	22	1.07	20	1.48	2	312	1.95	2	181	21	76
Amusements	19	1.80	19	1.88	16	153	1.61	16	89	9	117
Auto	9	3.43	11	3.15	23	117	2.34	23	68	7	135
Building	17	2.07	16	2.38	6	214	2.58	6	124	16	92
Chemicals	3	8.91	3	7.91	21	134	6.93	21	78	10	114
Drugs	18	1.82	9	3.92	9	196	2.07	9	114	2	189
Electrical equipment	8	3.45	13	2.66	8	205	4.11	8	119	25	65
Food	14	2.70	18	1.92	11	174	2.74	11	101	24	70
Machinery	5	4.71	5	6.09	19	150	4.12	19	87	4	148
Office equipment	21	1.27	12	2.81	1	410	3.03	1	239	15	93
Paper	11	2.89	8	4.14	5	221	3.72	5	128	12	111
Oil	2	15.40	1	15.26	7	206	18.41	7	120	18	83
Retail trade	7	4.21	14	2.62	10	177	4.33	10	103	26	61
Rubber	15	2.52	15	2.57	4	227	3.32	4	132	19	77
Steel	13	2.74	4	6.50	3	279	4.45	3	162	5	146
Textiles	16	2.13	23	.89	26	97	1.21	26	57	23	73
Tobacco	20	1.72	21	1.17	14	156	1.57	14	91	22	74
Mining	10	3.09	10	3.48	25	102	1.84	25	59	1	189
Utilities	1	17.53	2	13.70	15	154	15.71	15	90	17	87
Railroads	4	6.43	7	4.58	22	130	4.85	22	75	14	94
Railroad equipment	25	.47	24	.58	24	117	.32	24	68	3	180
Airlines	26	.46	25	.58	17	152	.41	17	89	6	142
Banks	12	2.78	17	2.27	20	135	2.19	20	79	13	104
Insurance	6	4.52	6	5.85	12	172	4.53	12	100	8	129
Sales finance	23	1.05	22	1.10	13	162	.99	13	94	11	111
Investment companies	24	.78	26	.53	18	150	.69	18	88	20	77
Total		100.00		100.00			100.00				

[1] Market price index based on Barron's "Group Stock Averages."

[2] Theoretical percentage of portfolio in 1958 = $\frac{\text{(Percentage distribution of portfolio 1952)} \times \text{(1958 market price index)}}{\Sigma[\text{(percentage distribution of portfolio 1952)} \times \text{(1958 market price index)}]}$

[3] Market factor = $\frac{\text{Theoretical percentage of portfolio in 1958}}{\text{Actual percentage of portfolio in 1952}}$

[4] Management factor = $\frac{\text{Actual percentage of portfolio in 1958}}{\text{Theoretical percentage of portfolio in 1958}}$

The percentage distribution of the funds' common stock portfolio at the beginning of the period and the index of market price change during the period were combined in the following manner to derive the market factor and the management factor for the period. In table IV–26 the percentage of common stock holdings in each industry in December 1952 was multiplied by the index of price change for that industry between 1952 and 1958. The resultant distribution was converted into a theoretical percentage portfolio distribution indicating the portfolio structure which would have resulted if no purchases and sales had been made during the period. Discrepancies between this theoretical distribution and the actual distribution were produced by portfolio transactions. The management factor for each industry was defined as the actual percentage of common stock held in that industry at the terminal date divided by the theoretical percentage calculated in the manner described. A resulting figure of 100 (expressed as a percentage) would indicate that the actual and theoretical portfolio positions at the end of the period were identical. A management factor of less than 100 would indicate a relative decrease in holdings of stocks in that industry as a result of portfolio transactions. A management factor greater than 100 would similarly indicate a relative increase. The variations envisaged are in all cases relative changes. An index of 90 might typically be produced by the funds' adding to the holdings within that industry, but not adding to them as rapidly as additions were made to stocks in other industries.

For purposes of deriving the market factor, as employed in comparison with the management factor, the theoretical distribution of portfolio at the end of the period was divided by the actual portfolio at the beginning of the period. The market factor is thus not simply a measure of the extent of a price change in stocks of a certain kind. It is a measure of the extent to which actual portfolio structures as they existed at the beginning of the period would be affected by such a price change during the period.

The purpose of successive comparisons between the market and management factors, then, is to examine the role of market prices and portfolio transactions respectively in producing changes in the industrial composition of the common stock portfolio of the funds. The analysis, it should be emphasized, is not a performance analysis. The timing of purchases and sales has not been introduced. No data are presented which would permit a conclusion as to whether purchases were made at low prices and sales at higher prices, or vice versa. Nor is any consideration given to those transactions in which both purchases and sales were made within a given period. The analysis simply attempts an identification of the extent to which market factors have generated changes in portfolio structure, the extent to which portfolio transactions have produced such changes, and the number of instances in which the two forces have acted in the same (and opposite) directions.

As indicated in tables IV–26 and IV–27, four different time periods were analyzed: The entire 5¾ years of the study, December 1952 to September 1958, and three shorter periods defined by the benchmark dates of December 1955, December 1957, and September 1958. The general conclusions of the shorter periods were similar to those of the complete 5¾ years and most of the following discussion will be based upon the longer period.

In the 1952–58 period only 9 of 26 industries showed the market factor and the management factor moving in the same direction. In four such cases both factors operated to increase the relative portfolio shares held in the industry; viz., drugs, paper, steel, and insurance. In five cases both factors moved in the same direction to diminish the relative shares of the portfolio held in the industry: Textiles, tobacco, utilities, rails, and closed-end investment companies. In each of the other 17 industries the two factors were offsetting, indicating that management action was tending to change the portfolio structure in a manner contrary to what would have resulted from the operation of market value changes alone. In eight cases the market factor operated to increase the relative shares of the portfolio but was offset by management action. Industries in this class were aircraft, building, food, electrical equipment, office equipment, oil, retail trade, and rubber. In nine industries the tendency of market price changes to diminish the relative portfolio importance was frustrated by management action. These included amusements, automobiles, chemicals, machinery, mining, railroad equipment, airlines, banks, and sales finance.

Many interpretations of these conclusions are possible, and their significance, particularly as they impinge on the question of investment performance, depends largely on the timing of any portfolio switching involved and on the timing of the investment of new money inflows to the funds. But it is clear that the funds have taken action from time to time to counteract market pressures. On the basis of the data available for the present analysis, a fairly large number of instances occurred (nine), in which the funds increased their relative positions in industries whose security prices did not advance as much as the rest of the market, and there were eight instances in which they reduced their relative positions when industry securities advanced in price more than the rest of the market.

If attention is centered on the instances in which the market factor operated to increase the relative share of portfolio held in an industry, it is found that out of a total of 12 such instances the management factor reinforced the market factor in 4 cases and counteracted it in 8. Similarly, the market factor operated to diminish the relative shares of the portfolio in 14 cases, and again the number of instances in which the management factor counteracted the market factor (9) exceeded the instances in which both factors worked in the same direction (5).

Of the 4 industries in which both the market factor and the management factor for the 1952–58 period were greater than 100, 3 had not ranked among the largest 10 industries in 1952, but all were among the largest 10 in 1958. Drugs, with a management factor of 189 rose from the 18th to the 9th rank; steel with 146 rose from the 13th to the 4th; and paper with 111, rose from 11th to 8th. The market factor for insurance was only slightly above average with the result that a management factor of 129 increased the relative share, but did not improve the industry's ranking of sixth.

Of the industries in which both market and management factors produced reductions in relative holdings, utilities and rails with management factors of 87 and 94, respectively, were the most important. Utilities dropped from the first to the second position in industry ranking and rails went from fourth to seventh. None of the other

three were heavily represented in the funds' portfolios at any time during the study period.

The oil industry moved during the study period from the second to the first rank, but this shift was accomplished by the drop in relative portfolio position of utilities rather than by an increase in the relative position of oil. The management factor for oil was only 83 and the fairly stable relative position was produced by the above-average market price performance of oil company stocks. Chemicals and machinery retained their ranks of third and fifth as a result of somewhat similar but inverse market and management factors. The stocks of both these industries had below-average market performance, but this was accompanied in each case by management factors of more than 100. Machinery in particular received heavy support with a fourth ranking management factor of 148.

Mining, drugs, railroad equipment, machinery, and steel were the highest five industries in the ranking of management factors. Drugs and steels have already been cited as industries where portfolio transactions reinforced market price increases to produce rather substantial relative increases in portfolio positions. Machinery is an example of an important industry in which relative growth was produced by new investments offsetting slightly less than average market action. Mining and railroad equipment ranked 25th and 24th among 26 industries in market factors. They are both examples of high management interest where market performance has been quite inferior.

The five industries in which the funds have the lowest management factors are retail trade, electrical equipment, food, textiles, and tobacco. The latter two were previously referred to as industries with below-average market price performance and in which management action also tended to diminish the relative portfolio position. Textiles was the only industry with a decline in Barron's average for the period. None of the other three industries with low management factors, retail trade, electrical equipment, and food, were among the best market performers, but all were slightly above average. They appear to be examples of industries with a fair performance but little attraction for the managers of the funds. Retail trade ranked seventh in value of investments in 1952 and electrical equipment ranked eighth. By 1958 they had dropped to the 14th and 13th places respectively.

The findings based on the three shorter time periods were very similar to those of the 1952–58 period (see table IV–27). The predominance of offsetting factors was again apparent. In 52 of 78 instances the market factor and the management factor exerted opposing pressures on relative portfolio structures. In only one industry did the pressures from these two factors operate in the same direction during each of the three periods. This occurred in the case of rails, where both factors produced decreases in 1952–55 and 1955–57, and increases during the first three quarters of 1958.

TABLE IV–27.—*Changes in common stock holdings of all open-end investment funds, by industrial classification, resulting from market price variations and portfolio management decisions, December 1952–September 1958*

Industry	December 1952 to December 1955		December 1955 to December 1957		December 1957 to September 1958	
	Market factor	Management factor	Market factor	Management factor	Market factor	Management factor
Aircraft	236	80	94	85	82	111
Amusements	88	132	82	100	123	88
Auto	81	135	79	101	108	98
Building	117	88	106	99	100	105
Chemicals	96	104	88	108	92	101
Drugs	74	128	135	147	114	100
Electrical equipment	107	76	118	90	95	93
Food	90	84	107	91	106	92
Machinery	103	119	83	128	103	98
Office equipment	130	97	170	100	109	95
Paper	127	100	107	84	96	131
Oil	112	90	112	93	95	99
Retail trade	99	63	100	85	104	113
Rubber	139	87	107	97	89	91
Steel	151	140	95	100	114	104
Textiles	93	73	51	121	119	83
Tobacco	71	92	120	99	108	82
Mining	75	170	76	112	104	99
Utilities	80	95	119	91	94	101
Railroads	96	100	68	91	116	104
Railroad equipment	99	151	66	142	104	84
Airlines	104	101	67	131	126	107
Banks	80	88	100	122	98	96
Insurance	113	112	96	114	92	101
Sales finance	87	123	108	98	101	92
Investment companies	81	97	106	87	102	91

The management factor was greater than 100 in each period for four different industries: Steel, insurance, airlines, and chemicals. The cumulative effects of the portfolio additions which this implied, measured by the corresponding management factors for the 1952–58 period as a whole, varied from 114 for chemicals to 146 for steel (table IV–26), but the same constant pattern of management action was present in each instance. Six industries, on the other hand, showed management factors of less than 100 in each of the three periods: Tobacco, closed-end investment companies, electrical equipment, food, rubber, and oil. The last two of these industries accounted for 13 of the 30 common stocks in which the investment funds had their largest holdings during the years 1951–57. The fact that the management factors were in each period less than 100 is therefore somewhat unexpected, but this may offer a partial explanation for the relatively low percentage of total assets (approximately 20 percent) held in these 30 securities.[15]

This analysis of market factors and management factors for the three shorter time periods does not permit firm conclusions to be drawn as to whether management action at any time anticipated correctly the market behavior in the ensuing period. But a comparison between the management factors of a given period and the market factors of the ensuing period does suggest some interesting tentative conclusions. Such a comparison states that portfolio transactions in a given period led to an increase (or decrease) in the relative portfolio importance of a certain industry and then examines whether the market factor for that industry tended to change its relative portfolio importance in the same direction in the following period.

[15] This sample of stocks will be employed for further analysis later in the present chapter.

The time periods over which the management factors were measured were 3 and 2 years, respectively, both rather long periods of time, each permitting considerable portfolio transactions. The management factors in the bull market period between 1952 and 1955 exerted portfolio pressures in the same direction as the market factors of the less stable markets of the 1955–57 period in the case of only 6 of the 26 industries. But there were a larger number of instances (17) in which the management factors of the 1955–57 period and the market factors of the 1958 recovery operated in the same direction. The lack of agreement in the first of these comparisons could be the result of several factors. The investment fund managers may have failed to predict accurately the changing directions of market movement in the more volatile 1955–57 period, thus failing to take advantage of the changing market impact on portfolio values, or they may simply have ignored the short-run effects of market changes, concentrating consciously on the expected or hoped-for long-run effects.

INVESTMENT FUNDS' HOLDINGS OF SAMPLE 30 STOCKS

The foregoing portfolio analysis is supplemented in this section by an examination of the investment funds' holdings in the sample 30 stocks referred to earlier in this study. This will be followed by an analysis of the funds' trading activities in total portfolio securities, in common stocks, and in the present sample of stocks during each of the years under study. A description of the sample of stocks and the method of its selection is given in the appendix to this chapter, and only the following characteristics need be summarized at this point. The sample stocks were chosen from those having the largest dollar value in the funds' portfolios during the years 1951 through 1957. Twelve of the thirty are included in the list of 30 used for the Dow-Jones industrial average, and 7 of the 30 were included in the most active 25 stocks on the New York Stock Exchange during the year 1958.[16] The sample was distributed among 13 of the 33 industrial classes employed in the foregoing portfolio analysis.

The data shown in tables IV–28 through IV–31 indicate the relative importance of these 30 stocks in investment fund portfolios and in total market activity. At each of the four benchmark dates employed in this study, the market value of the total outstanding issues of these 30 stocks accounted for approximately 40 percent of the total market value of all stocks listed on the New York Stock Exchange. As indicated in the second column of table IV–28 this relationship varied between 36.3 percent in 1952 and 41.8 percent in 1957, and and stood at 36.4 percent at the final benchmark date of September 1958. This represents a fairly high degree of concentration of listed values, when account is taken of the fact that throughout the period covered by this study the New York Stock Exchange maintained a total listing of approximately 1,500 stocks (including preferreds) issued by some 1,100 corporations.[17] Further light is thrown on the concentration of total listed values by the data in table IV–29, which indicate that at each of the four benchmark dates the largest four stock

[16] Fifteen of the thirty stocks were included in the list of 25 stocks employed in the study of the Senate Committee on Banking and Currency, under the chairmanship of Senator J. W. Fulbright, on "Institutional Investors and the Stock Market, 1953–55."

[17] See New York Stock Exchange Fact Book 1959, p. 36.

listings on the New York Stock Exchange accounted for approximately 20 percent of the total listed values. At September 1958 the relevant figure was 19.4 percent. At each of these four dates the largest four listings were the common stocks of American Telephone & Telegraph, Du Pont, General Motors, and Standard Oil of New Jersey.

These sample 30 stocks also accounted for a significant share of investment fund portfolios, but their relative importance to the funds was considerably less than the importance of the stocks to New York Stock Exchange total listed values. As shown in table IV–28, the 30 stocks accounted for 22.5 percent of the funds' common stock portfolios in 1952, and for 23.5 percent in 1958. These figures indicate that these securities comprised a larger portion of the common stock portfolio, but the 23.5 percent in 1958 was much lower than the 36.4 percent of the total exchange values accounted for by the same stocks.

TABLE IV–28.—*Selected data on market value of sample 30 stocks and all stocks—Investment fund holdings and New York Stock Exchange, December 1952–September 1958*

Date	Percent of total investment fund stock holdings in sample 30 stocks	Percent of total market value of all New York Stock Exchange stocks in sample 30 stocks	Percent of total market value of sample 30 stocks held by investment funds	Total market value of stock holdings of investment funds as percent of total market value of all stocks listed on New York Stock Exchange
December 1952	22.5	36.3	1.5	2.5
December 1955	25.7	40.8	2.0	3.1
December 1957	24.6	41.8	2.2	3.7
September 1958	23.5	36.4	2.6	4.0

TABLE IV–29.—*Investment fund holdings and total market values of the largest 4 New York Stock Exchange listed stocks,*[1] *December 1952–September 1958*

Date	Investment fund holdings of these 4 stocks as percent of investment fund total stock holdings	Total market value of these 4 stocks as percent of total market value of all stocks listed on New York Stock Exchange
December 1952	3.7	17.7
December 1955	5.3	20.7
December 1957	3.8	19.7
September 1958	4.3	19.4

[1] American Telephone & Telegraph Co., Du Pont de Nemour Co., General Motors, Inc., Standard Oil Co. of New Jersey.

The difference between the concentration of assets in the largest four issues was even more pronounced. The share of fund portfolios invested in those four stocks (table IV–29) moved from 3.7 percent in 1952 to 4.3 percent in 1958 (compared to a corresponding ratio of approximately 20 percent for the New York Stock Exchange). A portion of this difference was produced because the funds did not have their largest common stock holdings in these four issues, though they did not concentrate their investments to any significant degree in any four issues. The largest four holdings of the funds accounted for

only 6.5 percent of their total common stock portfolios in 1958, and the corresponding ratio in 1952 had been only 4.7 percent.

A further view of the relative importance of this sample of 30 stocks is given in table IV–30. The total purchases of these stocks on the New York Stock Exchange during each of the years under study varied between 14 percent and 16.3 percent of the total of all stock purchases on the exchange. For the final period studied, the first nine months of 1958, the figure stood at 15.7 percent. Thus these 30 stocks accounted for approximately 40 percent of total listed values and approximately 16 percent of total market transactions. Investment fund purchases of these stocks rose from 6.2 percent of the total market trading in these stocks in 1953 (table IV–30) to 8.9 percent in 1958. Investment fund sales of the same stocks rose similarly throughout the period from 2.4 percent of market trading in the stocks in 1953 to 5.5 percent in 1958.[18]

TABLE IV–30.—*Selected data on purchases and sales in sample 30 stocks—Investment funds and New York Stock Exchange, January 1953 through September 1958*

Year	Investment fund purchases of sample stocks as percent of total New York Stock Exchange purchases of same stocks	Investment fund sales of sample stocks as percent of total New York Stock Exchange sales of same stocks	Total New York Stock Exchange purchases of sample stocks as percent of total purchases of all stocks on New York Stock Exchange
1953	6.2	2.4	14.0
1955 (2d half)	2.8	2.9	16.3
1956	4.3	3.0	16.3
1957	5.8	4.4	15.8
1958 (9 months)	8.9	5.5	15.7

As a final indication of the relative importance of these 30 stocks, preparatory to more detailed analysis, data in table IV–31 indicate the percentage shares of the investment funds' combined common stock portfolio represented by the largest, the largest 5, and the sample 30 common stock holdings. The data show no significant changes during the 1952–58 period, and since the termination of the strong upward movement of market values in 1955 the shares of portfolios represented by the largest and the largest five holdings have been quite stable. At the benchmark dates in 1952, 1955, and 1957 the largest single holding was in Standard Oil of New Jersey stock. At September 1958 the highest ranking stock was that of International Business Machines. While at each of the 4 benchmark dates the largest and largest 5 stockholdings of the investment funds appeared in the sample 30 stocks, the sample did not in any 1 year coincide with the largest 30 holdings for that year. The percentage of portfolio held in these 30 stocks combined cannot therefore be taken as a measure of the relative degree of portfolio concentration in the same technical sense as the percentages held in the largest and largest 5. But for present purposes attention is centered on the relative importance of the sample stocks, preparatory to a study of the significance of investment fund trading for total market activity, rather than on the emergence of portfolio concentration measures as such.

The basis of the following analysis is provided by tables IV–32 through IV–34. The first of these tables indicates the investment funds' total holdings, by number of shares and by dollar values, of

[18] A more complete analysis of market trading in these stocks will be made in a subsequent section of this chapter.

each of the 30 stocks, and compares the number of shares held in each to the total listed size of the issue. The relevance of these data for the funds' potential impact on market activity will become clear, and measures will be constructed of the average rates of turnover of these holdings for the total dealings on the stock exchange and for the investment funds respectively.

TABLE IV–31.—*Percentage of total investment fund common stock portfolios represented by the largest common stock holdings, the largest 5 common stock holdings, and the holdings of the sample 30 stocks*

Date	Largest stockholding	Largest 5 stockholdings	Sample 30 stocks
December 1952	1.4	5.7	22.5
December 1955	1.7	7.3	25.7
December 1957	1.7	7.1	24.6
September 1958	1.7	7.6	23.5

At this point again, as at other stages of the present study, it is necessary to note that the funds' holdings of these stocks have varied against the background of rapidly rising total holdings, consistent with the expansion in the total assets and investment portfolios of the investment company industry. Between the benchmark dates of December 1952 and September 1958 the total assets of the funds included in the universe of the present study increased by 213 percent, the total common stock portfolios increased by 231 percent and the combined holdings of the sample 30 stocks expanded by the slightly larger amount of 245 percent. The total values of the holdings of the 30 stocks rose during this period from $674 million to $2,325 million. Every one of the 30 issues contributed to this increase, from Goodrich, which rose by only $4 million, to International Business Machines and United States Steel, both of which rose by almost $150 million.

The distribution of investment fund holdings among the 30 stocks during the 1952–58 period is shown in table IV–32, and the extent of the funds' concentration in the largest and largest five holdings has been shown in table IV–31. The only stock which maintained a place in the largest five holdings throughout the period was Standard Oil of New Jersey, which fell, however, from the highest rank in 1952, 1955, and 1957 to fourth place in 1958. During the same period the value of this holding rose by some 290 percent from $40.5 million to $157.8 million. At December 1952 one further oil company, Continental Oil, was represented in the largest five stockholdings, and ranked third with a total dollar value of $33 million. At the final date of September 1958 this stock had dropped from the largest five but had been replaced in third position by another oil stock, that of the Texas Co., the holdings of which amounted to $159.3 million. At the earlier date, 1952, the Texas Co., holdings had accounted for only $26.7 million.

This heavy investment in oil stocks, which is reflected also in the holdings of the remaining oil companies included in table IV–32, reflects the conclusion reached in the preceding section of this chapter regarding the industrial distribution of the funds' total common stock portfolio. It was found there (see table IV–23) that by September 1958 oils had replaced utilities as the highest ranking industry in the common stock section of the combined portfolios, accounting for some 14.1 percent of the total.

TABLE IV–32.—*Open-end investment fund holdings of each of 30 stocks, by number of shares and market values, December 1952 to September 1958*

Stock	December 1952			December 1955			December 1957			September 1958		
	Number of shares	Value	Percent of listed shares	Number of shares	Value	Percent of listed shares	Number of shares	Value	Percent of listed shares	Number of shares	Value	Percent of listed shares
	Thousands	*Millions*		*Thousands*	*Millions*		*Thousands*	*Millions*		*Thousands*	*Millions*	
Aluminium, Ltd	286	$15.0	3.5	442	$47.5	4.4	1,650	$47.7	5.5	1,511	$47.9	5.0
Amerada	135	25.1	1.8	384	35.7	5.2	536	48.9	7.3	554	61.7	7.5
American Telephone & Telegraph Co	119	18.7	.3	250	45.3	.5	162	27.1	.3	443	84.9	.6
Armco Steel	119	5.0	2.3	668	46.5	6.3	961	53.0	8.0	1,417	84.8	.6
Atchison Topeka & Santa Fe	250	25.2	5.2	351	51.4	7.2	1,277	22.0	5.3	1,267	32.3	9.2
Bethlehem Steel	345	18.9	3.6	578	94.3	6.0	2,255	82.7	5.1	2,149	104.3	5.8
Central & South West	755	16.0	8.9	761	26.9	7.9	924	38.1	9.0	849	45.0	4.3
Continental Oil	528	33.0	5.4	584	58.3	6.0	1,256	55.1	6.4	1,251	71.7	8.4
Du Pont	229	23.0	.5	348	80.1	.8	392	69.4	.9	418	82.6	6.9
Firestone	240	17.9	6.1	567	44.9	7.0	638	56.3	7.6	691	72.7	8.2
General Electric	416	30.2	1.4	1,067	61.4	1.2	1,076	66.3	1.2	1,050	69.2	1.2
General Motors	412	28.3	.5	2,286	105.4	.8	1,675	57.3	.6	2,061	95.6	.7
General Public Utilities	637	18.0	7.4	861	31.5	8.8	985	37.3	9.5	997	44.5	9.6
Goodrich	414	31.9	10.0	733	63.3	8.3	691	46.1	7.7	533	35.9	5.9
Goodyear	269	14.5	6.2	887	57.6	8.8	1,020	83.0	9.6	1,064	97.2	10.0
Gulf Oil	528	26.5	2.2	516	47.5	1.9	792	85.7	2.5	874	102.5	2.8
International Business Machines	75	17.6	2.5	108	43.5	2.6	377	115.5	3.3	407	165.6	3.4
International Paper	629	34.5	7.1	723	81.9	6.6	693	60.0	5.5	776	83.0	6.1
Kennecott Copper	325	25.4	3.0	384	45.3	3.6	400	31.4	3.7	348	33.4	3.2
National Lead	395	12.6	3.9	500	42.1	4.4	555	53.6	4.8	422	44.9	3.6
Phillips Petroleum	357	22.3	2.5	496	41.0	2.9	976	36.4	2.8	920	42.1	2.7
Shell Oil	235	16.9	1.7	631	40.7	2.3	695	47.1	2.3	719	59.2	2.4
Socony Mobil	510	19.1	1.4	765	44.1	2.2	1,160	55.6	2.4	1,074	52.1	2.2
Standard Oil of California	485	28.6	1.7	779	71.2	2.5	1,637	75.3	2.6	1,732	95.9	2.7
Standard Oil of Indiana	240	19.4	1.6	623	31.7	1.9	901	32.5	2.5	1,238	59.4	3.4
Standard Oil of New Jersey	522	40.5	.9	727	110.9	1.1	2,400	119.9	1.2	2,715	157.8	1.3
Texas Co	464	26.7	1.7	644	78.1	2.3	1,415	96.6	2.5	2,105	159.3	3.5
Union Carbide	290	20.8	1.0	387	42.4	1.3	349	33.2	1.1	369	41.7	1.2
United States Steel	355	14.6	1.4	1,310	81.2	2.5	1,788	92.4	3.3	2,041	162.4	3.8
Westinghouse Electric	591	28.2	3.8	488	29.3	2.9	572	36.4	3.4	531	35.5	3.1
Total dollar value		674.1			1,681.1			1,761.8			2,325.4	