

## CHAPTER V

### INVESTMENT COMPANY PERFORMANCE <sup>1</sup>

The concept of investment fund performance relates to the effectiveness or efficiency with which the assets of the fund are administered, or to the degree of success achieved by the fund in investing the capital entrusted to it by its shareholders. Measures designed to record such degrees of success can be adapted not only to the tracing of absolute changes in relevant variables, for example in the funds' asset values per share, but to the comparison of performances between funds in definable sectors of the investment company industry on the one hand, and to the comparison with appropriate external capital market standards or benchmarks on the other. The motivations by which investors are attracted to investment company shares have not been subject to scrutiny in the present study; but it is clear from the variety of investment objectives announced by the funds, and from the variable inflow experience of funds of different types from year to year, that investor expectations also vary and that the extent to which they are fulfilled as a result of the funds' investment experience in each case needs to be assessed against appropriately defined criteria. There are no necessary reasons, for example, why a balanced fund should record, or should be expected to record, changes in asset values in a given market environment similar to those of a common stock fund. And similarly, it is to be expected that the funds which announce an "income" objective will afford investors different rates of return, and will realize different changes in asset values from year to year, from the funds described throughout this study as "growth" funds.

The investment company industry provides a variety of services and advantages to the investing public. Some of those more frequently cited are expert management, the diversification of investment opportunities and risks, convenience, and low costs for small purchases. While the concept of performance as employed in this chapter does take some account of diversifications, as instanced in the employment of different performance measures for different types of funds as already referred to, the following analysis is not concerned with the amount of diversification as a goal in itself. Similarly, the analysis is not concerned with costs of acquiring shareholdings in investment funds or with the costs or character of the funds' book-keeping functions or other activities, except as the latter are reflected in changes in the net asset values over which the management exercises control.

The concept of performance, moreover, is not coterminous with that of investor experience. For an appraisal of the latter it would be necessary to consider the returns available to investors, measured in terms of some combination of income dividends, capital distribu-

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tions, and unrealized capital appreciation in the funds' portfolios,<sup>2</sup> in relation to the total investment outlay made by the shareholder, including the costs of acquiring his shareholding position. Such shareholding results may also be examined further after making adjustments for tax liabilities incurred by the investor, both income and capital gains taxes. And in the few cases in which funds impose a redemption charge on the repurchase of their shares, it would be necessary to take account of this factor also in order for the investor to compare his position after liquidating an investment company shareholding position with what it might have been if alternative investment opportunities had been taken.<sup>3</sup> The present chapter, however, is not addressed to investor experience in this technical sense. It aims principally to appraise the results of fund management by examining changes in the values of assets actually administered by the fund (net of sales charges and before tax payments by shareholders), and, in certain instances, changes in income distributions per share.

For purposes of the analysis, use will be made of a "composite performance measure" which combines the total assets held by a fund at the end of any given period with the total value of income dividends and capital gains distributions paid to the shareholders during the period, and relates this sum to the assets held by the fund at the beginning of the period. The rationale for this measure is that the combination of all these factors yields a picture of the overall change during any stated period of time, and a large positive change in the measure can be regarded as beneficial irrespective of the investment objective of the fund.

The composite performance measure,  $P_1$ , is computed by the formula below.

$$P_1 = \frac{NA_{t+1} + DI + DC}{NA_t}$$

$NA_{t+1}$  = Net assets per share at close of period.

$NA_t$  = Net assets per share at beginning of period.

$DI$  = Dividends per share from investment income during period.

$DC$  = Distribution per share from profits realized in sale of securities during period.

The use of per share figures (adjusted for stock splits and stock dividends where necessary) automatically compensates for any sales and repurchases of own shares by the fund. This performance measure assumes that all distributions are accepted by shareholders in cash and that they are not reinvested during the period.<sup>4</sup> When the measure is expressed as a percentage, a figure of less than 100 shows a net decline and a figure greater than 100 shows a net increase in the adjusted asset values.

Alternative measures of performance can be computed in which changes in net assets per share and the two types of distributions are examined individually or in pairs. Such measures would be designed to stress certain aspects of performance and to focus attention on the role played by specific factors. In addition to  $P_1$ , there are six

<sup>2</sup> The appropriate combination may differ with individual investors, and one possible combination is the sum of all 3.

<sup>3</sup> It would, of course, be necessary to adjust the alternative opportunities for all relevant costs.

<sup>4</sup> The timing of reinvestment will be discussed after some alternative formulas have been considered.

possible combinations of these three factors, but not all of the combinations are equally interesting.

A measure comparing  $NA_{t+1}$  with  $NA_t$ , or a measure comparing  $NA_{t+1} + DC$  with  $NA_t$ , would indicate the extent to which portfolio values have changed. The first of these measures stresses the value of each existing share and includes capital appreciation only if unrealized. The second measure includes all capital appreciation, both that retained within the portfolio and that realized and distributed to shareholders. Either approach might have specific relevance for a fund with an announced investment objective of capital appreciation or growth. The measures are placed on a relative basis in  $P_2$  and  $P_3$  below.

$$P_2 = \frac{NA_{t+1}}{NA_t}$$

$$P_3 = \frac{NA_{t+1} + DC}{NA_t}$$

These two measures could also be employed in appraising the performance of a fund seeking safety of principal. The difference would be that relative stability in the measures would be desired for the fund stressing safety, but long-term increases would be sought for capital growth. Both formulas focus on the changes which have occurred during the period in the market value of existing holdings, and this must be the rationale in their use.

$DI$  and  $DC$  are cash distributions to the shareholders. Both consequently may have some justification in a yield concept even though the sources of distribution are different. The inclusion of  $DC$  in a measure of investment yield may be subject to some question since such distributions of capital gains are reductions of capital, and a case might well be made for the use of  $DI$  only, as in  $P_4$  or  $P_4'$ . The base for a yield concept could be chosen as the beginning assets, as in the preceding formulas, or perhaps average assets.

$$P_4 = \frac{DI}{NA_t}$$

$$P_4' = \frac{DI}{(NA_t + NA_{t+1})/2}$$

While  $P_4'$  gives the yield on the average value of the assets during the period rather than on their value at the beginning of the period, it has the disadvantages of giving a high result if there has been a decrease in the asset value per share, and a low result if there has been an increase. The inclusion of  $DC$  as in  $P_5$  or  $P_5'$  would be based on total cash distributions and would ignore the fact that  $DC$  is a distribution from a gain in principal rather than in income.

$$P_5 = \frac{DI + DC}{NA_t}$$

$$P_5' = \frac{DI + DC}{(NA_t + NA_{t+1})/2}$$


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A fund whose investment objective stressed the realization of current income might be appraised at least partially in terms of some form of either  $P_4$  or  $P_5$ .

The analysis in the present chapter will be conducted principally in terms of formula  $P_1$  which is the most inclusive performance measure. A study will be made of investment yields also and for this purpose use will be made of formula  $P_4$  and  $P_4'$ . Performance measure  $P_3$  will be employed at an appropriate point to give an indication of changes in the capital values of investment holdings. The remaining formulas,  $P_2$ ,  $P_5$ , and  $P_5'$ , while useful in the foregoing discussion in completing the concept of performance alternatives, will not be employed, as the purposes for which they are designed will be adequately filled by the other measures.<sup>5</sup>

The period of time employed for the study of performance should be long enough to permit the realization of investment objectives. For some of the objectives a fairly long period is required; e.g., capital growth and future income. Safety of principal, if interpreted to imply liquidity or marketability at any time, could be appraised by an analysis of much shorter periods. The appropriate time interval for appraising a current income objective is probably an intermediate period. Most of the analysis in this chapter will be presented on an annual basis, considering a year to be of sufficient duration to accomplish at least a portion of the objectives and also a period of interest in comparing fund performances with movements in general market levels. Several shorter intervals (from 2 to 6 months) will be utilized to permit more detailed comparisons of fund performance in specific periods when the common stock market was more volatile.

Performance measures will be computed also for the entire 5¾ years covered by the study. This longer period is perhaps more suitable for appraising certain objectives and it affords the added advantage of showing cumulative effects of small annual differences in performance and asset values. The measure for the longer period is also helpful in distinguishing between a fund whose performance is consistently above the average for funds of a given class, and a fund whose performance is erratic, showing greater or lesser fluctuations about the average level.

The longer the period covered in the analysis, the more the results of formulas depend upon the frequency with which funds realize and distribute capital gains. In a rising securities market, these measures may show relatively inferior performances for funds that realize and distribute such gains. If the funds had retained these distributions, the corresponding security values would presumably have continued to rise with the market. The reverse may be true in a declining securities market, when the measures favor the funds that realize and distribute such profits. Were it not for the reinvestment of these distributions, the formulas would yield an accurate measure of performance, irrespective of the timing and frequency of the capital gains distributions. The acceptance of cash profits from the sale of securities results in a reduction of the value of the funds' security portfolio and their distribution constitutes a reduction in the investment of the shareholder in the fund. If the shareholder wishes to retain his

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<sup>5</sup> The distinction among the three components ( $NA_{t+1}$ ,  $DI$ , and  $DC$ ) may be somewhat artificial since, except for taxes, the shareholder can realize the value of each by liquidating his investment position. It is for this reason that the bulk of the analysis will be conducted in terms of performance measure  $P_1$ .

investment unimpaired, he should immediately reinvest distributions from capital gains (though the capital value of his investment will still be diminished by the capital gains tax on the distributions and by the costs, if any, of reinvestment). Many funds encourage such reinvestment and offer special services to facilitate it. The cumulative performance relative for the 5¼-year period can be computed by employing  $P_3$ , assuming reinvestment at the close of each calendar year. This is accomplished by chaining the annual performance relatives (multiplying them together).

The argument in favor of reinvesting dividends from investment income may not be as convincing, but it can be defended, particularly in those cases where the fund's investment activities are directed toward a capital gains objective. For purposes of an overall comparison, therefore, a second performance relative has been calculated for the 5¼ years by chaining the annual performance relatives computed by  $P_1$ . This calculation assumes annual reinvestment of all distributions.<sup>6</sup>

Because the concept of performance is concerned with the degree of success realized by the funds in the management of their portfolios, it is appropriate to compare their results to external security market standards derived from changes in market averages or price indexes. These latter may be viewed as reflecting the performance of hypothetical unmanaged portfolios. Several different averages were considered and all are presented as bases against which to compare the funds, but the Standard & Poor's 500 stock index is the principal one employed in the analysis. It has a greater coverage than the more widely known Dow-Jones averages, and its weighting scheme is more consistent over time. The further need of daily figures at various points of the study and the need of indexes for different types of securities dictated the use of Standard & Poor's indexes, although others such as the Securities and Exchange Commission stock index are of equal theoretical soundness. Comparisons of this type are in reality comparisons between the results obtained from an unmanaged group of common stocks held for an entire period and those obtained by the management of a fund as it varied the portfolio during the same period.<sup>7</sup>

While a common stock index may be an appropriate standard against which common stock funds should be measured, it would seem an improper standard for a more conservative balanced fund. These funds as a matter of policy include corporate bonds and preferred stocks and Government bonds in their portfolios to a larger extent than do the common stock funds, and their results might be more properly appraised in terms of their selections within these different security sectors. Accordingly, a second set of comparisons in which

<sup>6</sup> Neither of the two performance relatives for the 5¼ years corresponds to the results that would be obtained by automatic reinvestment on the date of distribution. Instead it is assumed that distributions are held in cash until the end of the calendar year and then reinvested. The extent of the difference in effect will depend on the magnitude of the change in the market price level between the distribution date and the end of the year, and the procedure will yield a result more favorable to the fund in a falling market and less favorable in a rising market.

<sup>7</sup> The performance figures for the funds have been computed after the deduction of the management fee. A similar deduction from a stock index would be necessary to show the theoretical performance for a fund holding such a portfolio. The justification of the typical management fee in such a case would be extremely tenuous and no such deduction has been made. The performance figures are also net of other fund expenses; e.g., recordkeeping and brokerage commissions. Obviously such expenses would be only minimal in the case of a fund holding an unmanaged portfolio of the securities contained in the stock index. For such a fund, however, a deduction should be made for these items also if strict comparability of performance measures were desired. But theoretical considerations such as these do not substantially affect the validity of the performance comparisons contained in the following text, and for this reason they will not be considered further in this chapter.

adjustments are made for different investment policies will be used in the analysis. Standard & Poor's indexes for various types of securities were employed to measure changes in values of securities representing each of the several sectors represented in the funds' portfolios. Each index was weighted by the portion of the portfolios devoted to that type of security at certain benchmark dates, and the resulting weighted index served as the standard against which the funds' performances were compared. Performance is thus judged after adjusting for basic policy decisions with respect to types of securities held by the funds.<sup>8</sup>

The data available for this study permitted analyses of the relationships, if any, between fund performance and several other characteristics of their structure and activities. Some of the more interesting of these features are portfolio turnover rates, sales charges, management fees, and brokerage affiliation. Each will be examined in turn in an attempt to ascertain any relevant characteristics that the superior (or inferior) performers have in common. Size and type classifications will be employed in the same manner as in earlier parts of the study.

The performance analysis of this chapter is based upon a different number of funds in each year, starting with 152 in 1953 and increasing each year until 1958 (first 9 months) when there were 189. Performance relatives for the entire 5¼-year period could of course be computed for only 152 funds. As in previous chapters, the universe includes only funds with net assets in excess of \$1 million on September 30, 1958. All averages for groups of funds are unweighted (i.e., each fund of the group is considered equally important regardless of size). This procedure was employed so that the results would not be dominated by the larger funds.<sup>9</sup>

#### ANNUAL PERFORMANCE OF INVESTMENT FUNDS

An analysis of the annual composite performance relatives for investment funds<sup>10</sup> reveals that every fund showed an increase in both 1954 and the first 9 months of 1958, and only one fund failed to show a gain in 1955. In 1957, however, only 13 of 178 funds recorded increases. During the other 2 years of the study, 1953 and 1956, the funds were more evenly distributed around the 100 base point. Fifty-seven percent exceeded that value in 1953 and 83 percent exceeded it in 1956. The same pattern emerges in the averages of the

<sup>8</sup> A second series was computed using a constant weighting scheme. Both series will be discussed later in the chapter.

<sup>9</sup> The fact that the average performance measure for groups of funds is unweighted should not be confused with the fact that both the Standard & Poor's composite common stock index and the performance measures for each individual fund are weighted averages. The weights employed in the Standard & Poor's index are the total market values of the stocks included in the index. In effect, the same kind of weighting exists in the performance measure for each individual fund, with each security weighted by the market values of the fund's holding in that security. While, however, the performance measure for each fund might thus be said to be weighted, it is preferable when considering a group of funds to take as a measure of group performance the unweighted average of the funds' individual performance measures. The results for different size groups permit the derivation of weighted averages as well.

<sup>10</sup> The annual composite performance relative employed in this section was referred to earlier as

$$P_1 = \frac{NA_{t+1} + DI + DC}{NA_t}$$

performance relatives.<sup>11</sup> As indicated in table V-1, no change occurred in the average relative in 1953, a large increase was recorded in 1954 (41.8 percent), followed by a smaller increase in 1955 (16 percent), a still smaller increase in 1956 (6.3 percent), a decline in 1957 (10.1 percent), and a pronounced increase in the first 9 months of 1958 (25.1 percent).

This pattern, as might be expected, corresponds in timing but not in amplitude to changes in the security market's common stock index. The difference between the common stock index, on the one hand, and investment fund performance, on the other, was greatest during the sharply rising markets of 1954 and 1955. As shown in table V-1, the Standard & Poor's composite common stock index<sup>12</sup> increased by 51.2 percent in 1954 and by 31 in 1955, while the funds had considerably smaller increases of 41.8 and 16 percent, respectively. The Standard & Poor's index figure was also higher in 1958, but the results were much closer (28.4 percent versus 25.1 percent). There were no declines in market price levels comparable in magnitude to those upward movements during the period covered by the study, but the 10.5 percent fall of the market in 1957 was accompanied by an almost equal, 10.1 percent, decline for the funds. In 1956, the average fund performance and the market index were almost identical (106.3 and 106.4), while the funds were slightly superior in 1953 (100 versus 98.8). These comparisons suggest that the funds' performance approximated that of a common stock average except in periods of most rapid market advance, although the funds did almost as well as the common stock average in the 1958 increase.<sup>13</sup>

<sup>11</sup> These averages are unweighted arithmetic means in which each fund is given equal weight. The median of the relatives was within 1 percentage point of the unweighted arithmetic mean in every instance except 1 (1954) although it was higher in every case. The mean was employed in this analysis because it behaves less erratically, particularly in small samples such as are used in the type and size analysis.

<sup>12</sup> The Standard & Poor's index has been adjusted for dividend payments in this analysis.

<sup>13</sup> The average fund performance by formula  $P_3$  (net assets at end of period plus distributions of profits realized from sale of securities), divided by net assets at beginning of period, is presented below along with relatives based on 4 different common stock averages. Both the performance measure for the funds and the common stock figures show the results of changes in security values as distinct from dividend income. The general nature of the comparisons between  $P_3$  and the Standard & Poor's composite index is much the same as that between  $P_1$  and the index adjusted for dividends, although the comparisons are slightly less unfavorable to the funds. Note that the Standard & Poor's index was the highest of the 4 index figures for most of the period, although all except the Dow-Jones composite generated a higher cumulative value than the funds. The use of the SEC index instead of the Standard & Poor's would result in a difference of approximately 1 percent per year, or about 5 percent in the cumulative figure.

	Fund average performance ( $P_3$ )	Standard & Poor's composite	SEC index	Dow-Jones industrial	Dow-Jones composite
1953 .....	96.05	93.38	93.95	96.23	93.20
1954 .....	137.30	145.02	142.07	143.96	142.03
1955 .....	112.72	126.40	122.27	120.77	114.98
1956 .....	103.21	102.62	102.62	102.27	100.76
1957 .....	86.69	85.69	85.56	87.23	83.70
1958 <sup>1</sup> .....	122.38	125.18	124.45	122.13	126.18
Cumulative .....	162.77	188.41	178.95	182.28	161.97

<sup>1</sup> 1st 9 months.

TABLE V-1.—Annual and cumulative fund performance relatives compared to market indexes

Year	Fund performance relative <sup>1</sup>	Market indexes	
		Standard & Poor's composite common stock index (adjusted for dividends)	Standardized performance relative
1953.....	100.03	98.83	99.60
1954.....	141.77	151.23	139.07
1955.....	115.95	130.96	123.06
1956.....	106.34	106.44	103.72
1957.....	89.89	89.52	92.71
1958 (9 months).....	125.13	128.43	120.91
Cumulative.....	196.68	239.53	198.18

<sup>1</sup> Unweighted arithmetic mean for all funds combined.

A comparison of investment fund performance with that of a common stock index, however, ignores the fact that the funds are never fully invested in common stocks. Of necessity, the funds must retain a percentage of their net assets in the form of cash and other liquid items. As a matter of policy, moreover, most funds include preferred stocks, corporate bonds, and Government securities within their portfolios. Each of these items fluctuates in value less violently than common stocks, and their presence in portfolios would tend to produce less violent changes in the performance relatives of the funds than is to be expected in a common stock index. To test this tendency, a standardized performance relative was computed by combining market indices for the various types of securities, each weighted by the percentage of assets held by the funds in that type of security.<sup>14</sup> A comparison of the funds with this conceptual base shows the funds forging ahead in 1954, but falling behind as the bull market continued in 1955. The adjustment reduces the magnitude of the difference in each instance—from deficits of 10 and 15 points to a 2½-point surplus in 1954 and a 7-point deficit in 1955. For the latter part of the period (1956–58), the funds actually demonstrated greater fluctuations than did the standardized performance relative. In 1956 and 1958 the funds recorded slightly larger increases than the weighted index (6.3 percent versus 3.7 percent in 1956 and 25.1 percent versus 20.9 percent in 1958) and a slightly larger decrease in 1957 (10.1 percent versus 7.3 percent). The same conclusions emerge if the analysis is based upon percentages of funds exceeding the standardized performance relative.

<sup>14</sup> The standardized performance relative was computed as a weighted ratio with assets divided into five sections: common stocks, preferred stocks, corporate bonds, Government bonds with more than 1 year until maturity, and all other assets. The following Standard & Poor's market indexes were employed for the various parts: Composite common stock index for common stocks, preferred stock index for preferred stocks, composite bond index (B1+) for corporate bonds and U.S. Government bond index—intermediate maturities for Government bonds with more than 1 year until maturity. All indexes were adjusted for dividend or interest payments. The bond indexes chosen represent the most typical rating and maturity for the holdings of the funds. The weights were based on the funds' holdings at the end of the previous year for 1953, 1956, and 1958. Other weights were based on the average holdings at certain benchmark dates. The average of December 1952 and December 1955 was employed for 1954 and 1955, while the average of December 1955 and December 1957 was used for 1957. All other assets were assumed to remain constant in price. Standardized performance relatives were computed for each of 11 separate groups of funds: foreign security funds, specialty funds, bond and preferred stock funds, and for each of the 4 size classes of balanced funds and common stock funds. The standardized relative for the total industry was then computed by weighting each separate standardized relative by the number of funds in the class.

The analysis, summarized in table V-1, thus compares investment fund performance with a standardized performance based upon weights determined by portfolio composition as close as practicable to the funds'



The analysis presented above has compared the performance of investment funds with that of two different concepts of an unmanaged fund. In the first, all assets are assumed to be invested in common stocks divided in accordance with the Standard & Poor's composite common stock index. In the second, the division made by management among types of securities is accepted, but within each section of the portfolio, investments are assumed to have been made in accordance with the issues in the appropriate Standard & Poor's indexes. As is to be expected, the comparisons yield somewhat different results. Compared to the common stock average, the funds fell considerably behind in the bull market of 1954 and 1955 and slightly behind in the 1958 period. During the rest of the study period, there were only minor differences between the index and the average for the funds. After adjusting for portfolio composition, the funds seem to have performed somewhat better than the standardized figure in 1954, but their results were lower than the standardized figure in 1955. For the period 1956-58, the average for the funds showed more volatility than the weighted index—larger increases in the market rises of 1956 and 1958 but a larger decrease in the decline of 1957.

#### CUMULATIVE PERFORMANCE OF INVESTMENT FUNDS

The annual performance relatives of the investment funds combined to generate an increase of 96.7 percent<sup>15</sup> over the 5¼ years included in the period studied. The Standard & Poor's composite common stock index had the considerably larger increase of 139.5 percent, while the weighted index which adjusts for types of securities held rose by 98.2 percent. When reduced to an average annual rate, these figures are 12.4 percent for the average fund, 16.4 percent for the common stock index, and 12.6 percent for the weighted index. Very few funds (only 13.2 percent of the total number) were able to record a better performance than the market's common stock average, but almost half of them (46.1 percent) surpassed the weighted index.

Although the average for the funds is a convenient summary statistic, it conceals a great deal of dispersion among funds. The cumulative performance relatives varied from one specialty fund that

actual portfolio composition at the beginning of the year for which the comparison is being made. A similar comparison between actual and standardized performance might be based on the assumption that the funds' portfolio composition throughout this period has been fluctuating about a norm. It may be doubted that the funds formulate investment policy in accordance with such firmly established portfolio norms, and certainly the current literature does not contain a quantitative definition of such a portfolio.

Nevertheless, at least at the conceptual level, performance by the funds can be considered against the theoretical results that would have been obtained if they had adhered to some constant weights. The source employed for these weights was the actual portfolios of the funds. The average holdings of the funds during the study period (using the 4 benchmark dates of December 1952, December 1955, December 1957, and September 1958) were accepted as the only relevant data available. Unweighted arithmetic means of the percentage of the portfolio devoted to each type of security were accepted as the norms for each subgroup of funds. The use of weighted arithmetic means would have given greater importance to the later portfolio structures and would have suggested that the funds were moving toward a more desired norm rather than the existence of an acceptable one for the entire period. Annual standardized performance relatives were computed for all balanced funds and for all common stock funds employing both unweighted arithmetic means and weighted arithmetic means. The annual standardized relatives based on these respective methods of compilation did not differ by as much as ¼ percentage point in any year of the study. The remainder of the analysis was therefore based upon standardized relatives employing unweighted means of the portfolio compositions.

The comparisons between the standardized performance relatives with constant weights and those with changing weights revealed no significant differences. The difference between the annual values for all funds was less than ½ percentage point in every year and the differences for subgroups exceeded 1 percentage point on only 3 occasions—2 years for foreign security funds and 1 for a specific size group within common stock fund. In view of these small differences, all subsequent discussion will be based upon the standardized performance relatives with changing weights.

<sup>15</sup> This figure is the result of chaining (multiplying) the average annual figures. By this method all funds are introduced into the computation. An average of the cumulative figures for the individual funds yields the somewhat higher figure of 98.17. The latter figure includes only the 152 funds in continuous existence for the 5¼ years of the study.

increased by 257.3 percent to a bond fund that increased by only 6.4 percent.<sup>16</sup> A portion of this variability among funds can be attributed to the difference in investment objectives and the resulting difference in portfolio compositions. For this reason, the subsequent analysis will consider various groups of investment funds classified on the basis of type and size.<sup>17</sup>

#### ANNUAL PERFORMANCE BY TYPE AND SIZE OF FUND

Performance<sup>18</sup> differences among types of funds were much more pronounced than those among funds of different sizes throughout the period covered by the study. The performance relatives for each year are presented for the various type and size groups of funds in tables V-2 and V-3. The average performance of the common stock funds was higher than that of the balanced funds in every year except 1953 and 1957, both years of falling stock market values. The bond and preferred stock funds recorded the poorest performances in four of the six periods, with 1953 and 1957 again the exceptions. The data did not permit any generalization to be drawn concerning the relationship between foreign security and specialty fund performance and that of the remaining funds. The classification by size of fund in table V-3 indicates that for all funds combined and for the common stock funds taken separately the smallest funds did not perform as well as the others. This generalization was not true, however, for the balanced funds considered as a separate class. The average performance for the smallest funds was relatively better in 1957 and in that year only the largest funds had a better average performance than did the smallest size class for all funds combined.

TABLE V-2.—Average annual performance relatives, by type of fund, 1953-September 1958

Group	1953	1954	1955	1956	1957	1958 <sup>1</sup>
Foreign security funds .....	96.57	146.15	117.06	109.69	80.83	127.49
Specialty funds .....	98.31	154.05	116.80	103.12	89.39	129.17
Bond and preferred stock funds .....	100.81	118.21	98.55	95.72	92.09	112.76
Common stock funds:						
Income .....	99.07	146.14	119.94	108.37	87.16	128.77
Growth .....	100.50	151.72	120.22	111.93	88.90	128.45
Mixed .....	100.29	144.56	119.51	108.67	89.36	127.58
All common stock funds .....	100.18	148.40	119.94	110.22	88.68	128.27
Balanced funds:						
Income .....	99.46	134.43	113.04	103.00	91.51	123.12
Growth .....	100.37	125.23	112.17	107.09	92.16	118.66
Mixed .....	100.88	132.71	114.64	104.44	93.70	120.36
All balanced funds .....	100.45	132.55	113.99	104.30	92.95	120.94
All funds .....	100.03	141.77	115.95	106.34	89.89	125.13
Standard & Poor's composite common stock index .....	98.83	151.23	130.96	106.44	89.52	128.43

<sup>1</sup> Performance for 1st 9 months of 1958.

NOTE.—All performance relatives are unweighted arithmetic means.

<sup>16</sup> Differences of less magnitude, but still of importance, can be observed in the annual performance relatives. Measures of the dispersion will be considered in a subsequent section of this chapter.

<sup>17</sup> It should be noted, as indicated more fully in the introduction to this chapter, that the present analysis is not directed to an examination of investor experience as distinct from the performance of investment fund management. The foregoing comparisons with external market standards of performance, however, should be regarded in the light of the fact that significant difficulties would be confronted by an individual investor of a limited amount of capital who attempted to achieve by direct purchase a comparable degree of diversification. First, his acquisition costs might exceed the 8 percent loading charge typically imposed by the funds, and this would undoubtedly be so if he turned over his portfolio fairly rapidly. Moreover, further costs or at least inconvenience, would be incurred due to such an investor's bookkeeping problems. On the other hand, if an individual investor were to hold portfolio securities for long-term investment, or if he bought securities in sizable lots, his costs would be lower.

<sup>18</sup> Actual performance by the funds, as measured by  $P_1$ , is considered in this section. Performance after adjustment for portfolio structure is discussed in the next section.

TABLE V-3.—Average annual performance relatives, by size of fund,<sup>1</sup>  
1953–September 1958

Size of fund	1953	1954	1955	1956	1957	1958 <sup>2</sup>
<b>All funds:</b>						
(a) Assets less than \$10,000,000.....	99.19	140.31	113.23	104.31	90.29	123.75
(b) Assets \$10,000,000 and less than \$50,000,000.....	101.08	142.75	117.55	108.29	90.22	125.71
(c) Assets \$50,000,000 and less than \$300,000,000.....	100.10	142.73	117.81	106.89	88.64	126.52
(d) Assets over \$300,000,000.....	100.02	142.82	118.25	108.08	91.04	127.45
<b>Common stock funds:</b>						
(a) Assets less than \$10,000,000.....	99.48	143.51	117.59	108.60	90.30	127.90
(b) Assets \$10,000,000 and less than \$50,000,000.....	101.40	150.11	120.77	111.49	88.42	128.22
(c) Assets \$50,000,000 and less than \$300,000,000.....	99.31	150.70	120.77	110.11	87.28	128.25
(d) Assets over \$300,000,000.....	99.36	147.94	119.96	109.50	89.30	130.58
<b>Balanced funds:</b>						
(a) Assets less than \$10,000,000.....	100.11	132.57	114.05	104.64	92.78	120.59
(b) Assets \$10,000,000 and less than \$50,000,000.....	101.20	129.71	113.05	103.57	94.96	119.58
(c) Assets \$50,000,000 and less than \$300,000,000.....	100.14	135.78	114.84	104.28	90.91	123.33
(d) Assets over \$300,000,000.....	101.67	130.02	113.98	104.54	95.40	119.62
<b>All funds.....</b>	<b>100.03</b>	<b>141.77</b>	<b>115.95</b>	<b>106.34</b>	<b>89.89</b>	<b>125.13</b>
Standard & Poor's composite common stock index.....	98.83	151.23	130.96	106.44	89.52	128.43

<sup>1</sup> Size classification is based upon net assets on Sept. 30, 1958.<sup>2</sup> Performance for 1st 9 months of 1958.

NOTE.—All performance relatives are unweighted arithmetic means.

The common stock funds recorded very good performances in 1954 and 1955, but in each of those years they failed to perform as well as the adjusted Standard & Poor's composite stock index. During the latter part of the study, this was not the case. After falling about 11 percentage points below the market average in 1955, the common stock funds exceeded the average by about 4 points in 1956 and were within 1 point of it in both 1957 and 1958, periods of declining and rising stock market values, respectively.

There were differences in the average performance relatives of common stock funds which stress different objectives, income, growth, and mixed, but these differences were much smaller than those between common stock funds and balanced funds. The differences among these types of common stock funds exceeded 3 percentage points in only 1954 and 1956, and in each of these years the funds stressing "growth" achieved the best performance. The relative of 111.93 recorded by the common stock "growth" funds in 1956 was the only instance in which the average performance for a group of funds surpassed the performance of the Standard & Poor's composite index by 5 points.<sup>10</sup>

The balanced funds showed greater stability in their performance relatives than did the common stock funds. This is to be expected from the larger defensive and senior security positions held by these funds, but it placed them at a disadvantage in the generally upward market movement during the period studied. In 4 of the 6 years the Standard & Poor's market index rose and the average performance relatives of the balanced funds and common stock funds exceeded 100. In all 4 years, however, the relative for common stock funds was greater than that for balanced funds. In the declining market of 1957, the greater stability of the balanced funds resulted in a decrease of only 7 percent, contrasted with an 11-percent decline for the common stock funds. The remaining year (1953) was a year of little change in the market, and the averages for balanced and common

<sup>10</sup> There were many cases in which the average for a group of funds was more than 5 points below the Standard & Poor's average. The most striking case was 1955 when the performance of each of the nine type groupings was more than 10 points lower than that of the market index.