

investment fund purchases as a percentage of total market trading remained below the 1953 level, although they increased slightly during that interval. Investment fund sales of the same stocks rose throughout the period from 2.4 percent of market trading in the stocks in 1953 to 5.5 percent in 1958 (in this case the two new funds did not contribute significantly to the 1958 figure). During the last 3 years of the study period the importance of these sample 30 stocks in the funds' total stock purchases increased, after having fallen to a lower level in 1955. But the tendency for the relative importance of the sample stocks to increase is subject to modification when data for each of the 30 stocks are examined separately.<sup>53</sup>

The analysis took as a convenient measure of the relative importance of fund trading in each of these stocks the ratio between the sum of the funds' purchases and sales of each stock (including transactions in all securities markets) and the total value, sales only, of the New York Stock Exchange activity in the stock.<sup>54</sup> An analysis was made covering the 13 quarterly periods of fluctuating market conditions between July 1955 and September 1958. It was found that the funds' share of market trading rose above 10 percent in at least one quarter for each of the 30 stocks. Consistently high market shares were attained by the funds in three stocks: Armco, Goodrich, and Goodyear, in which the funds' share was more than 10 percent of market volume in 12 of the 13 quarters.

In five other stocks, Central and South West, Firestone, International Paper, Kennecott Copper, and Shell Oil, the funds accounted for more than 10 percent of the market volume in 10 of the 13 quarters.<sup>55</sup> If these ratios were based on the relation between the funds' purchases only, or sales only where the funds were net sellers of the relevant security, and total stock exchange purchases, or sales, the ratios would be approximately three-fourths their present values. It should be noted also that if the funds' transactions were related to public sales on the stock exchange, or probably even to public sales on all exchanges and over-the-counter markets, the ratios would be higher.

The total impact of the funds' portfolio policies on activity in the capital markets is determined partly by the distribution of their security holdings by market place of listing.<sup>56</sup> This distribution, as well as the facilities available in alternative markets, is influential in determining the extent to which differing market channels are employed to effect portfolio transactions. The size of transaction and the technique of effecting it are determined by the volume of transactions which can be accommodated by existing market structures; and there exists a tendency for institutional activity to affect the structure of capital market usage. Investment funds, as they expand in size, may tend to change the percentage of their portfolios which they hold in securities other than those listed on the New York Stock Exchange; and as the size of individual transactions increases, a larger percentage of their portfolio sales may be effected in the over-the-counter markets, by means of secondary offerings for example, rather than on the established exchanges.

Between 1952 and 1958 the proportion of the funds' stock portfolios held in stocks listed on the New York Stock Exchange fell from

<sup>53</sup> See pp. 258-260.

<sup>54</sup> See p. 262.

<sup>55</sup> See p. 270.

<sup>56</sup> See p. 182.

85.3 percent to 81.1 percent; the proportions held in stocks listed on other exchanges and in stocks traded only over-the-counter both increased by 2 percentage points during the same period. This relative movement from New York Stock Exchange stocks occurred in both balanced funds and common stock funds. In the case of the balanced funds the movement was observed in both their common stock and preferred stock sections.<sup>57</sup>

The analysis of the distributions of portfolios by place of listing for each type and size class of funds confirmed the general conclusions based on the aggregate data. Wide dispersions existed, however, between the various types and size classes of funds, with a smaller dispersion appearing among common stock funds owing to their more uniformly high percentage holdings of New York Stock Exchange stocks.<sup>58</sup>

Turning from the distribution of portfolios by market place of listing to the distribution of transactions by market channel employed, the funds effected 75.5 percent of their common stock purchases on the New York Stock Exchange in each of two time periods analyzed, the second quarters of 1953 and 1958. A similar distribution of transactions occurred in both the balanced funds and the common stock funds in each of the periods. About 75-80 percent of total purchases were effected on the New York Stock Exchange, and 15 to 20 percent were made in the over-the-counter markets. In no case did the other exchanges attract a significant share of the total.<sup>59</sup> The most significant departure from this pattern of trading occurred in the specialty funds.<sup>60</sup> In 1958, 45.6 percent of their purchases were effected in the over-the-counter markets, and over half of their total stock portfolio was held in unlisted stocks.<sup>61</sup>

The changes in the market distribution of common stock sales have been more marked than in the case of purchases. The use of the over-the-counter markets has expanded and sharp increases have occurred in the volume of portfolio sales effected by secondary distributions. For all funds combined the use of the New York Stock Exchange declined from 83.7 percent of sales in 1953 to 74.9 percent in 1958, the over-the-counter share rose from 12.4 percent to 18.9 percent, and other exchanges, slightly more important than for purchases, rose from 3.9 percent to 6.3 percent.<sup>62</sup>

The pattern of change in market usage is not as regular on the sales side of portfolio operations as on the purchases side. The common stock funds offset the reduction in the New York Stock Exchange share by increasing the over-the-counter share from 9.9 percent to 21.2 percent. The balanced funds, on the other hand, increased the relative importance of the other exchanges, whose share of sales rose from 2.8 percent to 9.8 percent, rather than increasing the relative importance of the over-the-counter markets.<sup>63</sup>

An analysis of the sales data by size groups of funds reveals that the expansion in size of each of the classes of funds between 1953 and 1958 was accompanied by a reduction in the relative importance of the New York Stock Exchange, and an increase in the use of the over-the-

<sup>57</sup> See pp. 183-186.

<sup>58</sup> See pp. 186-191.

<sup>59</sup> See p. 193.

<sup>60</sup> See p. 195.

<sup>61</sup> See p. 184.

<sup>62</sup> See p. 202.

<sup>63</sup> See p. 202.

counter markets. Both these movements were most marked in the case of the largest class of funds.<sup>64</sup>

The increasing use of secondary offerings as a medium for security sales, particularly by the largest funds, is one of the more significant phenomena associated with the growth of investment company size. In 1953 sales of stock by secondary offerings accounted for 4.3 percent of the funds' total sales, and by 1958 the corresponding percentage had risen sharply to 10.2 percent. This increase was due to the heavier activity of the common stock funds whose sales by secondary offerings rose from 4.1 percent to 13.3 percent of total sales. An analysis of the data by size of fund indicates the preponderant importance of the largest and second largest groups of funds, which used this technique in 1958 for 18.5 percent and 10 percent of their sales, respectively.<sup>65</sup>

A further partial index of the funds' investment policy is provided by an analysis of their rates of portfolio turnover.<sup>66</sup> Between 1953 and 1958 the weighted average rate of turnover of fund portfolios (after adjusting for net money inflow or outflow) increased from 17.6 percent to 23.6 percent.<sup>67</sup> The increase was most marked in the case of the common stock funds, whose turnover rates had been lower than those of the balanced funds at the beginning of the study period, a relationship which was reversed by 1958.<sup>68</sup>

Specialty funds displayed low turnover rates throughout the period studied, their rate exceeding 10 percent in only 2 years and never rising as high as 11 percent. The foreign security funds turned over their portfolios rapidly in 1955 and 1956, though by 1958 they had rates of slightly less than 15 percent, more in line with the rates for the industry as a whole.<sup>69</sup> The combined rates for the bond and preferred stock funds were uniformly high, varying between 20 percent and 30 percent for the entire period.<sup>70</sup>

Throughout the period studied turnover rates were inversely related to investment fund size. The funds in the smallest size group had the highest turnover rates throughout the period, never falling below 32 percent and rising as high as 47 percent in 1957. The largest size class of funds, on the other hand, showed the lowest turnover rates for each year, though their rates rose during periods of stock market upswing, for example the first half of 1957 and in 1958.<sup>71</sup>

It is conceivable that a part of the explanation of relatively higher portfolio turnover rates in the smaller funds could depend on the age of the fund, on the expectation that a newly formed fund may record higher turnover rates as it shifted its assets from a temporary liquid position into permanent portfolio securities. An analysis of relevant data does lend some support to such an hypothesis, but the tendency for higher turnover rates in recently formed funds is clearly observable only in the years 1955 through 1957. This, however, does not eliminate the inverse relationship between turnover and size, for the larger funds had generally lower rates than those smaller funds which had been in existence for several years.<sup>72</sup>

<sup>64</sup> See pp. 203-204.

<sup>65</sup> See pp. 204-205.

<sup>66</sup> See p. 210.

<sup>67</sup> The measure of portfolio turnover rates on which the weighted average computations were based was computed as the ratio of one-half of purchases and sales less net inflow or outflow, divided by average net assets.

<sup>68</sup> See p. 215.

<sup>69</sup> See p. 213.

<sup>70</sup> See p. 213.

<sup>71</sup> See p. 215.

<sup>72</sup> See p. 215.

Turnover rates within the industry demonstrated wide dispersion throughout the period covered by the study. In 1955 the industry had its lowest combined turnover rate, but 9.2 percent of the funds had rates greater than 50 percent. In every other year more than 10 percent of the funds had rates in excess of 50 percent, and 20.3 percent of the funds were in this category in 1958. At the other extreme, there were many funds with quite low turnover rates. In 1958, when the industry had the highest combined turnover, 15.1 percent of all funds had rates below 10 percent.<sup>73</sup> A more complete analysis of the data suggests, moreover, that the dispersion among the turnover rates of the individual funds has been increasing with the passage of time.<sup>74</sup>

Funds in which the controlling organization and/or individual of the fund were affiliated with a broker exhibited higher turnover rates than did the industry as a whole in every year 1953 through 1958. The disparity in rates diminished between 1953 and 1958, however, and more important, the differences in turnover rate seemed primarily attributable to the differences in size of the funds.<sup>75</sup> One small broker-affiliated fund (assets \$1.4 million as of September 1958) had turnover rates in excess of 100 percent in each of the 6 years studied. Another such fund which held assets of \$27.7 million reached a high rate of 201 percent in 1957 and exceeded 100 percent in 4 of the 6 years.<sup>76</sup>

The foregoing summary of the funds' turnover experience has referred to the turnover of total portfolios, including securities of all types and maturity dates. It was also necessary to estimate the rate at which the funds were turning over the equity sections of their portfolios in order that a direct comparison might be made with the rate of turnover of stocks in the securities market. For this purpose the turnover rates for all stocks listed on the New York Stock Exchange were taken as appropriate external bases of comparison.<sup>77</sup>

The equity turnover rates, while they are in general lower than the comparable total portfolio turnover rates, exhibit a similar and pronounced negative relation between investment fund size and the rate of turnover of stock portfolios. The equity turnover rates for all funds combined and for each size group of funds increased with the rising market of 1954, fell in 1955 and rose in the strong upward market of 1958, following the price cycles of 1956 and 1957.<sup>78</sup>

More important, in each of the years examined except 1955 the equity turnover rate for all funds combined (adjusted for inflow on the most reasonable assumptions) was higher than the comparable turnover rate on the New York Stock Exchange for all stocks listed in that market. The heightened activity of 1958 widened the gap between the funds' rate and the market rate to 4 percentage points, 16.9 percent compared with 12.9 percent.<sup>79</sup> Much the same relationship held for all size groups of funds except the largest, in which case the equity turnover rates were consistently lower than those of the New York Stock Exchange.<sup>80</sup>

<sup>73</sup> See p. 217.

<sup>74</sup> See p. 222.

<sup>75</sup> See pp. 224-226.

<sup>76</sup> See p. 226.

<sup>77</sup> See p. 230.

<sup>78</sup> See p. 231.

<sup>79</sup> The New York Stock Exchange turnover rate is based on total transactions in that market, and the rates would of course be lower if they had been based only on public transactions and lower still if they had been based only on odd-lot transactions.

<sup>80</sup> See pp. 231-234.

When attention is focused on the sample 30 stocks referred to in the foregoing summary of portfolio distributions, it is noteworthy that in each of two time periods examined (1956-57, and the first three quarters of 1958) the funds' combined turnover rate in the sample stocks exceeded the comparable rate for activity on the New York Stock Exchange.<sup>81</sup> The turnover rate in these 30 stocks combined was again lower for the largest funds than the industry total in each of the periods.<sup>82</sup>

These relationships did not hold uniformly for each of the 30 stocks considered separately. In 1956-57 the funds' turnover rate exceeded that of the market in only 13 of the 30. In 1958 this relation held for 21 of the 30. In 11 of the 30 stocks the funds' turnover rates were higher than the corresponding market rate in both the time periods: American Telephone & Telegraph, Du Pont, General Electric, General Motors, Gulf Oil, Phillips Petroleum, Shell Oil, Socony Mobil, Standard Oil (New Jersey), Union Carbide, and Westinghouse Electric.<sup>83</sup>

An analysis of the funds' actual transactions in common stocks provided significant comparisons with stock market transactions in general. The funds' gross purchases of common stocks averaged \$56 million per month in 1953, rose to a monthly total well in excess of \$100 million by the beginning of 1956, and during 1958 the monthly average rose to \$195 million, or 3½ times their level in 1953. The average monthly sales of common stocks in 1953 were slightly more than \$30 million, and an average monthly level of \$100 million was not reached till 1958. Monthly net purchases of common stock averaged \$23 million in 1953 and \$75 million in 1958. Considerable variation in purchases and sales volumes occurred from month to month throughout the study period, but in only one month, January 1958, were the funds net sellers of stocks.<sup>84</sup>

Between 1953 and 1958 the funds' gross purchases of stocks, common plus preferred, increased from 5.3 percent of the total New York Stock Exchange volume to 8.7 percent. Net purchases increased during the same period from 2.3 percent to 3.5 percent of the exchange volume.<sup>85</sup> In the rising market of the third quarter of 1958 the funds' gross purchases rose to 10 percent of the exchange volume and net purchases were also higher.<sup>86</sup> But during the study period as a whole the increase in the funds' share of total market volume was considerably less than the increase in the absolute value of their portfolio operations. Between 1953 and 1957 their net purchases volume rose by 136 percent, but their corresponding share of New York Stock Exchange activity rose by only 23 percent.<sup>87</sup>

#### INVESTMENT COMPANY PERFORMANCE

The analysis of investment policy summarized above raises questions regarding the success with which the funds have realized their investment and portfolio objectives. The degree to which announced objectives are successfully attained from year to year, or during a

<sup>81</sup> See p. 234.

<sup>82</sup> See pp. 237-238.

<sup>83</sup> See pp. 238-239.

<sup>84</sup> See p. 241.

<sup>85</sup> See p. 244.

<sup>86</sup> As was noted earlier the entry of two new large funds in 1958 contributed to the increase in the funds' stock purchases in that year.

<sup>87</sup> See p. 246.

longer period of time, is of course important as a measure of the extent to which the performance of the funds either vindicates or disappoints investor expectations. The degree of success of investment fund performance also bears on the basic economic question of the efficiency of allocation of investible funds among alternative economic uses.

From the investor's standpoint the purchase of investment company shares is but one of a number of ways of disposing of personal savings. And one way of assessing the relative merits of holding personal wealth in this rather than in alternative forms is by an examination of comparative performance measures. While the number of potential comparisons available in this connection is as extensive as the bases of investor motivation and their reasons for holding investment company shares, it is convenient for practical purposes to measure investment fund performance in terms of the annual or periodic change in net asset values per share, adjusted for dividend and capital gain distributions, or in terms of the periodic dividends paid on the shares. At the same time, a classification of the funds according to differences in their announced portfolio objectives can be made the basis of comparison of performance measures with appropriate external standards, such as stock market price indexes or other weighted or composite security price measures.

A detailed analysis has not been made of the specific motivations leading to the investors' purchases of investment fund shares. However, the frequently quoted reasons for purchase—availability of expert investment advice, diversification of portfolio risks, convenience of security management, economy of bookkeeping activities, as well as differing requirements as to income, capital gains, capital stability, liquidity, or growth—can all be subsumed under the classifications of the funds adopted throughout this study; namely, the division of the funds into the broad types of common stock funds, balanced funds, and other numerically less important types and the subdivision of these into funds announcing investment objectives stressing "income" and "growth" in differing degrees.

It is clear from the variety of investment objectives announced by the funds that a single measure of performance for all funds and for all investors is inadequate. There is no strong reason, for example, why a balanced fund should record, or be expected to record, changes in asset values similar to those of a common stock fund. Similarly it is to be expected that funds which announce an "income" objective will yield different rates of return and will experience different changes in asset values from funds with a "growth" objective. It should be noted, moreover, that reliable data were not available for this study to permit a comparative analysis of the performance of other financial institutions with similar investment objectives.

During the period under study, performance records varied considerably, both within and among types of funds, but on the average conformed rather closely to the behavior of the securities markets as a whole. For the 5½ years covered by the study, the Standard and Poor's Composite Common Stock Index was definitely superior to the average performance of the funds, but the disparity can be explained by the portfolio structure of the funds; i.e., the division of their portfolios among common stocks, preferred stocks, corporate bonds, Government securities, and other assets. When adjustments are made for this composition, the average performance by the funds did not differ

appreciably from what would have been achieved by an unmanaged portfolio with the same division among asset types. About half the funds performed better, half worse, than such an unmanaged portfolio. Performance records, unadjusted for portfolio composition, of the smallest funds were somewhat inferior to those of the other funds, but these differences can again be largely explained by differences in portfolio structure.<sup>88</sup>

Since perhaps the major function effectively served by mutual funds is the provision of diversification, a feature particularly important to small investors who can ill afford large risks, it is important to point out that such an investor who attempted to achieve a comparable degree of diversification by direct purchases might incur acquisition costs in excess of the 8 percent sales charge typically imposed by the funds.<sup>89</sup> And this would undoubtedly be so if he turned over his portfolio fairly rapidly. In addition, 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. For purchasers of front-end-load contractual plans, only limited returns can usually be realized unless such plans are held for substantial periods of time. When such plans are discontinued during the first 2 years of their life the deductions for sales charges may exceed 30 percent of the total investments made (and much more if discontinued earlier). It may be noted that even if such plans are held to maturity the effective sales charge is greater than the nominal rate, since the sales charge is concentrated in the early years of the plan whereas the shareholder's equity builds up most rapidly in the later years. In comparing the mutual funds' performances with that of composite unmanaged portfolios, it should be noted, finally, that an individual investor would have lessened the degree of risk in his portfolio by giving more weight to fixed interest-bearing obligations, but in such a case he also would have reduced his rate of return.

Every fund recorded an increase in adjusted net asset values during the 5¼-year period, and the average cumulative increase (assuming annual reinvestment of all distributions) was about 100 percent.<sup>90</sup> There were, of course, pronounced differences in the performance of funds of different types. The common stock funds and the specialty funds exhibited the greatest amount of volatility, and because of the generally rising stock market of the period covered, they also recorded the largest increases in adjusted net assets. The bond and preferred stock funds, on the other hand, were less variable but recorded the smallest increases. Balanced funds and the foreign security funds occupied intermediate positions with respect to both these characteristics. These differences, particularly those between common stock funds and balanced funds, which, taken together, account for the largest number of funds in the industry, once more were attributable to portfolio composition and each group performed more or less according to the theoretical expectations generated by appropriately weighted indexes.<sup>91</sup>

The more volatile nature of common stocks was apparent in comparisons between the Standard and Poor's Composite Common Stock

<sup>88</sup> See pp. 296-298.

<sup>89</sup> The 8-percent sales charge can, of course, be avoided by investment in a no-load fund.

<sup>90</sup> See p. 310.

<sup>91</sup> See pp. 310-311.

Index and the average performance measures for all funds or for the various subgroups. Except during the periods of most rapid market advance, the funds' performance approximated that of the index but the greater volatility of the index was constantly present and persisted regardless of the direction of the movement.<sup>92</sup> The cumulative result yielded an increase of approximately 140 percent in the index as contrasted to the fund average of 100 percent, though the relatively poorer performance of the fund average is largely due to the influence of nonequity securities in fund portfolios.<sup>93</sup> Only 13 percent of the funds exceeded the Standard and Poor's figure, and every one of them was either a common stock fund or a specialty fund. However, when the more meaningful comparison of common stock funds with the index is made, the cumulative increase in the funds' performance measure amounted to 124 percent compared with the market increase of 140 percent. In the case of common stock funds, 25 percent exceeded the market average.<sup>94</sup> In 1957 and 1958, there was a suggestion that the common stock funds were beginning to demonstrate at least as much volatility as the index. This phenomenon appeared in both the declining phase of the market and the subsequent recovery.<sup>95</sup> Preliminary data for the period September 1958 to June 1962, including the December 1961 to June 1962 downturn, suggest that the common stock funds continued to show fully as much volatility as the index.

There was considerable variability in performance among funds of the same general type, both for individual years and on a cumulative basis,<sup>96</sup> but no fund recorded below average results annually throughout the 5¼ years. Two funds, on the other hand, one common stock fund and one balanced fund, recorded above average results annually; that is, they were in the upper half of the funds of the same type groups in each year. There appeared to be certain funds that performed well during rising markets but rather poorly when the market declined. Other funds withstood the declines well but did not enjoy a great deal of success during the market increases. Both for balanced funds and common stock funds separately, the distribution of funds classified by the number of years in which they demonstrated above-average performance seems completely random or conforming to chance.<sup>97</sup>

The existence of rather substantial differences in portfolio turnover rates within the investment company industry raises the question of the effect of such differences on performance. A high turnover rate that results in superior performance should cause little concern to the shareholder, but a high rate that results in mediocre or inferior performance is another matter. The brokerage commissions generated by high turnovers are expenses to the fund and the shareholder has a right to question management if consistently high expenses of this type are accompanied by relatively poor performance. The analysis revealed no strong relationship between turnover rates and performance, either when the variables were examined for the same time period or when performance lagged 1 year behind turnover.<sup>98</sup> Thus, there has

<sup>92</sup> See pp. 296-297.

<sup>93</sup> See pp. 297-298.

<sup>94</sup> See pp. 308-310.

<sup>95</sup> See p. 314.

<sup>96</sup> See pp. 303-304.

<sup>97</sup> See pp. 355-358.

<sup>98</sup> See pp. 318-343.



been no consistent evidence to indicate that high portfolio turnover rates have worked either to the advantage or disadvantage of the shareholder. However, it might be argued that a strong justification for high turnover rates would lie only in superior performance, since any tendency toward portfolio churning may be suspect from the viewpoint of the shareholder's interest.

It might be expected that investors would be willing to pay higher prices, in the form of management fees or sales charges, for those funds with the better performance records. There is some variability in the industry with respect to these rates and the investors could weigh costs against performance. Nevertheless, the evidence does not indicate the existence of any relationship between performance and either of these principal rate schedules.<sup>99</sup> The implication is that these rate schedules are not indicative of performance. The fact that the analysis does not reveal a significant relation between management fees and performance indicates, in other words, that investors cannot assume the existence of higher management fees implies that superior management ability is thereby being purchased by the funds. In the same way, the absence of a relation between sales charge and performance means that the investor is not able to conclude that the existence of a higher sales charge is associated with the existence of superior performance.

The previous finding that the rate of new money inflow was positively related to sales charges suggested that the sale of fund shares might be based on selling efforts stimulated by higher sales commissions. The present finding indicates that these sales charges were not in turn related to performance. If performance measures had been based on the total investment made by the shareholders, including sales charges, rather than on the funds' net asset values, it is clear that less favorable results would have been recorded by the funds imposing a higher sales charge. The annual payment of the management fee, on the other hand, has already been taken into account in the performance measures, and from the shareholder's view, therefore, no further adjustment would be necessary.

If investors are conscious of the performance records of the various funds, they might be expected to direct their purchases toward the funds that have been most successful. If this be the case, there should be a positive relationship between performance in one period and net inflow in a later period. Annual figures, with inflow lagged 1 year behind performance, do reveal a weak positive pattern among the common stock funds but no relationship among the balanced funds. Cumulative figures for the entire 5¼ years show a stronger positive pattern.<sup>100</sup>

Annual dividend yield would seem most relevant as an index of performance for those funds that announce an "income" objective. Within both the common stock funds and balanced funds, those announcing this objective consistently recorded the highest dividend yields, and their return exceeded that of the Standard and Poor's Stock Index for each of the last 4 years of the study, although they were below the index in 1953 and 1954. Funds announcing a "growth"

<sup>99</sup> See pp. 345-349.

<sup>100</sup> See pp. 343-344.

objective had the lowest yields and the "mixed" funds occupied an intermediate position. Bond and preferred stock funds recorded the highest yields throughout the study. The postwar rise in interest rates together with the decline in common stock yields produced a shift in the relationship between the yields of common stock funds and balanced funds with the latter higher in the second half of the study, whereas the common stock funds had been higher in the first half. The average yield for all funds was lower than that of the Standard and Poor's Index for every year prior to 1958.<sup>101</sup>

#### IMPACT ON THE STOCK MARKET

Though it is extremely difficult to isolate the impact of mutual funds from other influences, it seems likely that the growth in the funds' net purchases of common stock has stimulated stock prices markedly during the past decade or so, during which the industry has expanded enormously. Much of this money might have been invested directly in the stock market even in the absence of mutual funds, but a substantial proportion probably would not have been invested in the market either directly or indirectly without the growth of mutual funds and their successful tapping of savings sources not traditionally channeled into the stock market. The largest funds, it may be noted again, did not show as strong a growth trend as funds generally, reflecting the formation of a substantial number of new funds as well as an inverse relation between initial size and percentage growth.

There has been an impressive increase over the past decade in the ratio of mutual fund gross and net purchases of common stock to total trading in such securities, but even at the peak, fund gross purchases have run to under 10 percent of total New York Stock Exchange volume—except for occasional days—and fund net purchases to under 5 percent. The ratio of fund net purchases to the entire volume of new stock issues of U.S. corporations (other than mutual funds) was more impressive, averaging 27 percent over the 1953-58 period covered, and ranging from 15 percent at the beginning to 44 percent at the end of the period.<sup>102</sup> Data available from Government and industry sources do not indicate any pronounced trend in the relative importance of mutual funds in the markets for outstanding or new stock issues since 1958.

While it is not possible to estimate quantitatively the long-run impact of mutual funds on stock prices as a whole, an attempt has been made in this study to measure the effect of fund net purchases on the month-to-month and daily movements in the stock market. There is some but not strong evidence that net purchases by mutual funds significantly affect the month-to-month movements in the stock market as a whole.<sup>103</sup> There is stronger evidence that fund net purchases significantly affect the daily movements in the stock market, and the statistical results suggest that this effect may be fairly substantial.<sup>104</sup>

In connection with the stabilizing or destabilizing behavior of mutual funds on the market—that is, the extent to which the timing and pattern of their trading moderated or accentuated short-term price fluctuations, the relatively stable inflow of money into these

<sup>101</sup> See pp. 351-353.

<sup>102</sup> See p. 366.

<sup>103</sup> See pp. 371-373.

<sup>104</sup> See pp. 373-375.

funds and their extensive use of limit orders, particularly by the largest funds, may be considered to exercise some stabilizing influence.<sup>105</sup> Thus their day-to-day and intraday net purchases do show some tendency to counter the immediately preceding and concurrent short-term price trends,<sup>106</sup> but there is no consistent relation of these net purchases to month-to-month price trends.<sup>107</sup> The funds showed some tendency to trade with, rather than against, the trend in cyclical movements of stock prices, and this destabilizing behavior seems to reflect discretionary action rather than the automatic channeling of net inflow into the market.<sup>108</sup> At turning points, the discretionary action of the funds—except perhaps for the largest funds—tended to stabilize at the lows and destabilize at the highs of the market.<sup>109</sup>

Turning to the analysis of individual securities, the funds' portfolio activity showed more influence on the monthly prices of a number of issues than on the stock market as a whole.<sup>110</sup> On the other hand, the apparent fund impact on day-to-day price trends of individual stocks was not so great as on month-to-month price trends unlike the results obtained for the market generally.<sup>111</sup> Of 30 issues which were mutual fund portfolio favorites over the period covered, the monthly (relative) price of 23 was positively correlated with the preceding month's fund net purchases; the monthly price of 6, or 20 percent, appeared to be significantly affected by the preceding month's purchases and even more so by the preceding 3 months' purchases. These 30 issues on the average rose considerably more in price than the stock market as a whole over the 1953-58 period covered, and there was a significant correlation between the percentage increase in price of each issue and the volume of fund net purchases relative to New York Stock Exchange volume.<sup>112</sup> The funds showed a definite tendency to buy on balance in the 2 months prior to cyclical upswings in the prices of these individual issues and to sell on balance (or to have weaker purchase balances) in the 2 months prior to cyclical downswings, giving some support to the hypothesis that fund activity may have been partially responsible for (and may have partially forecast) the major market movements in these issues.<sup>113</sup> It is an interesting phenomenon that mutual funds as a whole may to some extent have the ability to fulfill their own market predictions, and in particular to validate their own appraisal of individual issues. The very limited tests carried out do not point to either superior or inferior performance by mutual funds in directing capital into particularly profitable areas of economic investment as measured by the subsequent trend in earnings.<sup>114</sup> Though the results again are not uniform, there is somewhat more evidence of destabilizing behavior by mutual funds in individual issues than in the market as a whole, particularly within market declines.

The chapter on stock market impact also discusses a number of other technical aspects of the trading behavior of mutual funds of which two might be mentioned here. First, as might be expected, the average size of mutual fund transactions in the stock market is

<sup>105</sup> See pp. 377, 379.

<sup>106</sup> See pp. 375-376.

<sup>107</sup> See p. 373.

<sup>108</sup> See pp. 366-367.

<sup>109</sup> See pp. 367-370.

<sup>110</sup> See pp. 385-386.

<sup>111</sup> See pp. 380-390.

<sup>112</sup> See pp. 387-388.

<sup>113</sup> See p. 382.

<sup>114</sup> See pp. 392-393.

much greater than that for other investors.<sup>115</sup> Second, a negligible number of funds use or have used formula timing or similar investment plans.<sup>116</sup>

To summarize, mutual funds have probably helped to bring about a higher level of stock prices in the post-World War II period than would otherwise have existed. While this effect cannot be quantified satisfactorily, there is some evidence that it may be fairly substantial. However, mutual funds are only one of the factors contributing to the rise in stock prices and price-earnings ratios—with corporate pension funds, other institutions and individuals playing a major role, and a number of other postwar developments affecting the demand for and supply of stock issues, including the greater attention paid to inflationary tendencies, growth potentialities, capital gains, and the absence of major cyclical instability. It is not possible to characterize the trading behavior of mutual funds in response to prior or concurrent fluctuations in stock prices as preponderantly stabilizing or destabilizing, though there is some evidence of a destabilizing influence in price declines prior to the lows.

It is almost impossible to answer objectively whether the contributory role played by mutual funds in elevating stock prices and price-earnings ratios to the highest levels in our history, and correspondingly depressing dividend yield, is or is not economically or socially desirable, since the answer depends largely on value judgments. From an economic point of view, a booming market for equities might be expected to stimulate investment, prosperous business conditions, and economic growth. From a social point of view, abstracting from the price effect, a diffused beneficial ownership of U.S. corporations stimulated by mutual funds would be regarded by most people as a desirable development, though this brings with it increased potentialities for more concentrated control of industry. Such potentialities for more concentrated control of industry by a relatively small number of institutional investors are of course not unique to mutual funds but characterize other institutional investors as well and, as discussed later, could under certain assumptions (about the possible nature of the internal control of these institutions and their external role in portfolio companies) serve to strengthen rather than weaken corporate democracy.

On the other hand, it might be dangerous from both viewpoints for stock prices to be bid up so high that their maintenance depends too long on unfilled optimistic expectations; i.e., if capital gains are not ultimately justified by dividends. However, no one knows what price level is justifiable. The cornerstone of investor protection against overselling is best provided by insuring that selling methods and other practices of mutual funds are consistent with the basic canons of conduct in the securities markets (viz., responsible advertising, absence of misrepresentation and manipulation, full disclosure, etc.).<sup>117</sup> The advantages of any stronger measures, such as limiting the maximum financial inducement to sell fund shares, must be weighed against the danger of infringing unduly on individuals' freedom of market action.

<sup>115</sup> See p. 379.

<sup>116</sup> See p. 396.

<sup>117</sup> As noted earlier, studies now underway will cast additional light on selling practices and their impact on purchasers.

## PORTFOLIO COMPANY CONTROL

The authors of the Investment Company Act of 1940 were concerned with the extent to which investment companies had assumed and abused positions of control in portfolio companies in the prior few decades. Nevertheless, the emphasis of that act was on eliminating abuses previously associated with control rather than preventing the establishment or maintenance of control. Mutual funds, which were a relatively small factor in the industry prior to the 1930's, were subjected to limitations on portfolio company holdings, but more in the interest of assuring a diversified investment company portfolio than to prevent portfolio company control per se.

The act of 1940 limits diversified management companies' holdings of shares in any one portfolio company to an amount not exceeding 5 percent of the assets of the investment company and 10 percent of the outstanding voting securities of any portfolio company, with these limits to apply to 75 percent of the total assets of the investment company. The exemption of 25 percent of investment company assets from this 5- and 10-percent rule was for the purpose of encouraging investment in the illiquid stock of small companies.

In addition to the limitations imposed by the Investment Company Act of 1940, several States restrict portfolio concentration as a condition of sale of mutual fund shares in their jurisdiction. Ohio, Maine, New Hampshire, and California have 5- and 10-percent limitations applicable to the entire portfolio of open-end companies. Their restrictions are thus somewhat more severe than those provided in the act of 1940. No mutual fund had pushed its holdings by September 1958 anywhere near the limits permitted by the act of 1940 or by the laws of the various States. With redeemable shares outstanding and declared policies of managing an investment portfolio rather than attempting to manage portfolio companies, open-end companies have placed heavy weight on marketability and diversification.<sup>118</sup>

Open-end investment companies were quantitatively much more important as large stockholders in 1958 than in 1952. They owned at least 1 large (1 percent or more) holding in 959 portfolio companies in 1958, as compared with 595 in 1952; and 26 portfolio companies were owned 1 percent or more by each of 5 different open-end companies in 1958, as compared with 5 portfolio companies in 1952. Open-end companies owned 1,611 separate holdings of 1 percent or more of the outstanding stock and 165 holdings of 5 percent or over in 1958, as compared with 882 and 52 such holdings in 1952. They owned a total of 24 holdings of 10 percent or more in 1958, as compared with only 8 such holdings in 1952. If large portfolio company holdings are consolidated where two or more companies subject to common investment management hold stock in the same portfolio company, there were 183 control group holdings of 5 percent or more in 1958, as compared with 74 in 1952, and 33 group holdings of 10 percent or more, as compared with only 17 in 1952. In short, those holdings of open-end companies and groups which are of the greatest significance from the standpoint of control (those of 5 percent or over) more than doubled in number between 1952 and 1958.<sup>119</sup>

<sup>118</sup> See pp. 401-402.

<sup>119</sup> See pp. 405-409.