CHAPTER VI

MUTUAL FUND SIZE AND INVESTMENT PERFORMANCE

A. INTRODUCTION

The evaluation of various consequences of the dramatic growth of the mutual fund industry during the post-World War II period has been the recurrent theme of this report. Chapters III through V have examined advisory fees, portfolio transactions and sales compensation with a view to determining what additional steps need to be taken to protect the interests of mutual fund shareholders. The growth of the mutual fund industry and of individual funds and complexes, however, has raised a number of other—and in some respects broader—questions. Those relating to the impact of investment company growth on the Nation's securities markets and on relationships with companies whose securities are held in investment company portfolios are discussed in chapters VII and VIII of this report.

This chapter deals with the effects of size on the investment performance of both very large and very small mutual funds. The large portfolio holdings of the largest funds and fund complexes and the impaired portfolio mobility and flexibility inherent in such holdings raise questions as to the effect of the growth of these funds on their investment performance and the interest of their shareholders. On the other hand, the existence of a substantial number of very small mutual funds raises the question whether such funds are able to support management organizations which, at economically justifiable costs, serve investors as well as the managements of other funds do.

Concern over these questions appears in the Act and in its legislative history. Section 14(a) of the Act prohibits management investment companies from making public offerings of their securities unless they have a net worth of at least $100,000 or unless provision is made in connection with a public offering to insure that their net worth is increased to that amount by the firm subscriptions of not more than 25 persons. Although the Act does not contain maximum size limitations, section 14 of the draft bill introduced in the Congress in 1940 would have prohibited, with limited exceptions, the sale of shares in any diversified investment company or unit investment trust which had total assets in excess of $150 million. It also would have prohibited any person from serving as manager of, or investment adviser to, any group of diversified investment companies and/or unit investment trusts if the total assets of all such companies which he so served exceeded $150 million.[1] These provisions were replaced in the final version of the Act by the present provisions of section 14(b), which authorizes the Commission to study and investigate the effects "of substantial further increases in the size of investment companies"

[1] *See* S. 3580, 76th Gong., 3d sess. sec. 14 (1940).

on, among other things, "the investment policy of investment companies."

Sections B and C of this chapter examine various potential advantages and disadvantages inherent in or common to the management of very small and very large mutual fund portfolios. Section D examines the investment performance of these size groups of mutual funds to determine to what extent, if any, the possible disadvantages of extreme size outweigh any advantages and adversely affect the interests of investors. Section E presents the Commission's conclusions whether the relationships between size and investment performance records show a need for legislative action at this time to increase the existing minimum size requirements or to impose maximum size limitations.

B. MANAGEMENT PROBLEMS OF SMALL FUNDS

1. Management organizations

Small mutual funds, like large funds offer public investors an opportunity to participate in the securities markets through professionally managed, diversified portfolios. Although for such management a few small mutual funds may pay annual advisory fees of 1 percent or more of average net assets, most such funds do not pay substantially more than the traditional 0.50 percent rate. In other words, the typical annual advisory fee on $1 million of net assets amounts to $5,000.

Problems in the management of small funds often revolve around the development and maintenance of a staff capable of providing satisfactory levels of investment skill. In some small funds, management depends almost entirely upon the acumen of a single individual who not only manages the fund's portfolio but performs a variety of administrative functions for the fund and sells its shares. In such situations, independent research and field visits to portfolio companies or those considered for inclusion in portfolios are seldom feasible, and the investment adviser necessarily relies heavily for investment research on information contained in company financial reports, standard financial manuals, and investment advisory materials generally distributed by brokerage houses.

For many small funds these problems are mitigated because they are a part of a fund complex or their advisers are closely affiliated with either an investment counseling firm or a brokerage house with an established research staff. Advisers to other small funds which are not so affiliated may gain access to extensive research facilities by purchasing investment advice from an established investment advisory organization.

2. Costs of operation

As noted in chapter III, there can be substantial economies of size in the operation of mutual funds both in connection with portfolio management and the variety of other mmagement and administrative services required by investment companies. That chapter points out that the growth of the 20 largest externally managed funds during the period 1953–62 was in many cases accompanied by substantial decreases in their expense ratios, that is, the ratios of operating expenses to average net assets.[2] For the most part, these economies were

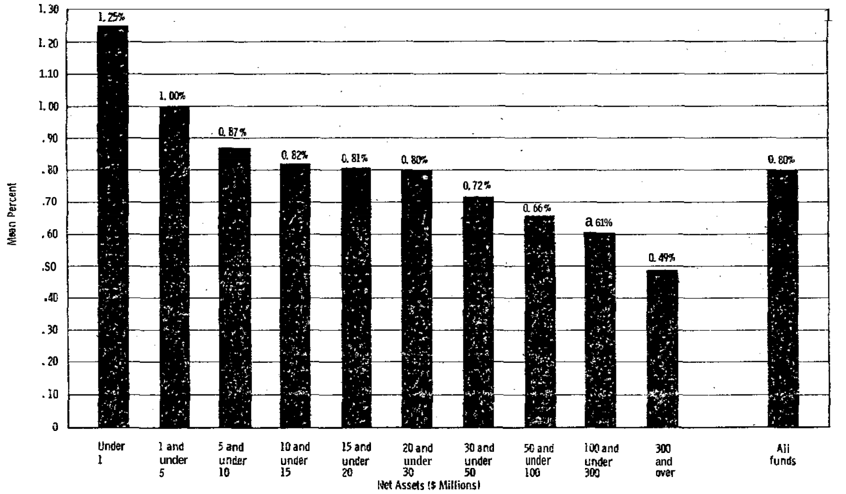
[2] See table III-6 at p. 112, supra.

derived not from reductions in advisory fee rates but from savings (per dollar of assets managed) in other expense items such as custodial, stock transfer, dividend disbursing, printing, legal, and auditing costs.

Chart VI–1 shows the average annual operating expense ratios of mutual funds in different size classes for the 5-year period 1961–65.[3] This chart shows that expense ratios declined consistently as fund size increased, from an average ratio of 1.25 percent for funds in the under $1 million size group *to* **0.49** percent for funds in the **$300** million and over size group. The mean annual expense ratio for all funds was 0.80 percent, and the mean expense ratio for each group of funds in the $20 million and over categories was equal to or below this ratio. The decline in expense ratios for size groups in the $10 million and over categories was much more gradual than for those in the smaller size groups.[4]

CHART VI–1

MEAN ANNUAL OPERATING EXPENSE RATIOS OF MUTUAL FUNDS AS PERCENT OF NET ASSETS FOR FIVE-YEAR PERIOD 1961-1965 a/



a/ Calendar years or latest fiscal years The number of funds ranged between 236 and 255

Brokerage commissions are another expense incurred by investment companies. For accounting purposes, they are considered a capital rather than an operating expense item. However, brokerage commissions, like operating expenses, directly affect investment performance. They are added to the cost **of** securities purchased and deducted from the proceeds of securities sold.

Like other investors, investment companies realize no economies of size in brokerage commissions for round lot transactions executed on exchanges, since such charges are governed by exchange minimum

3 The mean annual expense ratios shown in chart VI–1 are for the funds listed in the 1962 through 1966 editions of Johnson's Investment *Co.* Charts. The ratios are the averages of the annual ratios of all funds within each size group. The funds, whose numbers ranged from 236 to 255, were classified on the basis of their net assets at the end of each year.

4 Ratios for the size groups under $10 million declined from 1.25 percent for funds under $1 million to 1.00 percent for the $1 million to under $5 million size group and to 0.87 percent for the $5 million *to* under $10 million size group.

commission rate schedules which, as of this writing, do not provide for a volume discount.[5] Indeed, when disposing of portfolio securities large funds incur higher costs than small funds to the extent that they must employ secondary distribution techniques which would be unnecessary for a smaller fund disposing of an investment representing the same percentage of its assets, since the cost of disposing of securities in this manner usually averages four to seven times as much as transactions on national securities exchanges.

Nevertheless, small funds as a group may incur higher brokerage charges per dollar of assets managed than large funds if, as frequently occurs, they have higher portfolio turnover rates. Table **VI-1** shows

TABLE *VI-1—Mutual fund portfolio turnover rates by size group for funds with fiscal years ended Dec. 31, 1964–Oct. 31, 1966*

Portfolio turnover rates (percent)	Number of funds by net asset size (millions)					Total
	Under $1	$1 to under $5	$5 to under $100	$100 to under $300	$300 and over	
0 to 9.9	11	13	16	6	6	52
10 to 19.9	4	14	24	6	8	56
20 to 29.9	3	4	14	7	5	33
30 to 39.9	2	6	15	2	2	27
40 to 49.9	1	3	11	2		17
50 to 59.9	4	2	2	1		9
60 to 69.9	2	1	3	1		7
70 to 79.9	2	4	2	1		9
80 to 89.9	1	2				3
90 to 99.9		1	2			3
100 and over	5	3	5			13
Totals	35	53	94	26	21	229
Median rates (percent)	24	20	27	23	13	22
Mean rates (percent)	49	35	34	25	16	34

the distribution of portfolio turnover rates of **229** mutual funds by size groups for their fiscal years ended between December **31, 1964,** and October **31, 1965,** and the mean and median turnover rates for the funds in each size group.[6] Mean portfolio turnover rates declined as fund size increased, from **49** percent for funds with assets under **$1** million to **16** percent for funds with assets of **$300** million and over. Median portfolio turnover rates, while not showing a declining trend for the groups of intermediate size funds, were substantially higher for funds with assets under **$1** million **(24** percent) than for funds with assets of **$300** million and over **(13** percent).[7] All of the funds in the **$300** million and over group had turnover rates of less than **40** percent, **while** the percentage of funds with turnover rates under 40 percent in the other groups ranged from **81** percent for those with net assets of **$100** million to under **$300** million to **57** percent for those funds with

[5] See pp. 156–157, supra.

[6] Portfolio turnover rates were calculated by dividing the lesser of purchases or sales of portfolio securities for the fiscal year by the monthly average of the value of the portfolio securities owned by the mutual fund during the fiscal year. Excluded from the numerator and denominator are all U.S. Government securities and all other securities whose maturities at the time of acquisition were 1 year or less.

[7] Although the mean portfolio turnover rates were higher than the median rates for all size groups of funds, they were relatively higher for the groups of funds with assets under $5 million because of the extremely high portfolio turnover rates of some of the funds in those groups. See note 8, infra.

under $1 million in assets. All of the 13 funds with portfolio turnover rates of 100 percent or more had assets under $20 million. Eight of the 13 funds had assets under $5 million.[8] Commission studies covering longer periods of time show a similar pattern of higher turnover rates for smaller funds.[9]

C. MANAGEMENT PROBLEMS OF LARGE FUNDS

The management problems of large funds are quite different from those of small ones. Since expense ratios and portfolio turnover rates of large funds tend to be lower than those of small funds, operating costs tend to have less impact on their investment performance than they have on that of smaller funds. Moreover, advisers derive far greater resources from large funds and fund complexes than from small funds, thereby making it possible to develop and maintain extensive management organizations and to obtain the services of outside consultants when desired. In addition, because large funds are important brokerage customers, their advisers can, if they so choose, use their brokerage commissions to obtain more extensive supplemental investment advice from the research staffs of brokerage houses than can advisers to small funds.

The special problems of managing most large funds revolve mainly around the fact that they buy and sell large blocks of securities.[10] Although the assets of the largest funds are large enough to enable them to invest in many hundreds of securities, their managers generally follow a policy of limiting portfolio holdings to a far lesser number of securities and of obtaining relatively large positions in those securities which they believe offer the best promise of fulfilling the fund's investment objectives.[11] The investments of such funds, therefore, are generally limited to the more actively traded and widely held securities. Their managers seldom consider investing in the substantial number of securities in which relatively large positions cannot be readily acquired because of the small amount of stock outstanding or of the limited floating supply.

Even within the framework of these limitations, large funds frequently have difficulty in acquiring the securities they desire at prices close to those prevailing at the time the investment decision is made. The importance of this varies with the objectives of the fund. Many funds purchase securities with the intention of holding them for a long period of time, thereby hoping to benefit from the long-term growth of the enterprises that appear promising to them and of the economy in general. To them the problem of mobility is not as great as it is to funds which hope to benefit from short-term changes in the price of their portfolio securities.

A $5 million fund that wishes to invest 1 percent of its assets in a particular security normally can have its 500 or 1,000 share order

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[8] Of these eight funds, five were in the under $1 million category and had turnover rates ranging from 105 to 329 percent. The three funds in the $1 million to under $5 million category had turnover rates ranging from 119 to 162 percent. The other 5 of the 13 funds, all with assets under $20 million, had turnover rates ranging from 106 to 215 percent.

[9] The Wharton Report, using different definitions of portfolio turnover rates, also found that smaller funds had higher portfolio turnover rates. Wharton Report, pp. 210–230.

[10] See pp. 290–294, Infra.

[11] Some large funds set minimum requirements for securities eligible for inclusion in their portfolios. For example, one large fund normally does not invest less than $3 million in a single security nor hold more than 5 percent of any issuer's voting stock. Hence securities with voting rights eligible for that fund's portfolio are limited to those of companies which have voting stock outstanding with a value of at least $60 million.

executed through regular market channels within minutes, if it so desires. A $500 million fund that wishes to invest 1 percent of its assets in the same securities, however, must obtain 50,000 or 100,000 shares. Since blocks of that size are rarely available for purchase at one time, such funds usually accumulate their positions over a period of weeks or months by purchasing smaller blocks as they become available and by purchasing small amounts through regular market channels in a way that does not upset the market.

In some instances, large funds frequently cannot acquire the securities in the quantity that they wish even over a relatively long period. For example, in October 1962 the adviser to one large fund decided that the fund should purchase 490,000 shares of a company, which were then selling at approximately $49 a share. By the end of March 1963, when the price had risen to almost $66 a share, the fund had acquired less than 35 percent of the shares it sought. In another instance, albeit an extreme one, a fund determined in October 1960 to purchase 50,000 shares of a particular company but by the end of March 1963, almost 2½ years later, orders for 10,700 shares had not yet been filled.

These problems may be aggravated when a fund manager determines that a particular security is a desirable investment for more than one fund within the complex. Thus, in September 1962 a fund manager authorized the purchase of almost 443,000 shares of a company for two funds under its management. By the end of March 1963 less than half of the purchase order of one fund and a little more than 10 percent of the purchase order of the other fund had been filled. During this period the price per share had increased from $40 to $48.

Large funds also encounter comparable problems in connection with the disposition of large blocks of securities. Although funds seldom hold as much as 5 percent or more of a company's outstanding stock, even 1 or 2 percent frequently amounts to as much as 25 percent of the annual trading volume in the stock. Portfolio holdings of this size severely affect a fund's mobility by making it difficult, if not impossible, to react promptly to shifts in market trends. The disposition of such large blocks through the exchange or over-the-counter market at the time of the investment decision is sometimes impossible and a fund's inability to react promptly to investment decisions sometimes causes it to "miss the market." In declining markets, this lack of mobility can result in substantial losses or reductions in possible gains. For example, an adviser to one of the largest funds spotted unfavorable factors affecting one of their portfolio securities. A decision to sell their holdings of almost 220,000 shares was made at a time when the market was $57 a share. However, before much of their selling program could be effected, the market price dropped to the midforties. In rising markets a fund's inability to dispose of securities promptly in response to investment decisions seriously affects its ability to switch into more promising securities.

Because of the difficulties of disposing of large blocks of securities through normal market channels, funds are relying to an increasing extent on secondary distribution techniques which are more costly than normal market channels. However, in declining markets or where buying interest in a particular security is scant, a fund is sometimes unable to dispose of a large block of securities even through a secondary distribution. Under such circumstances, the fund can either retain the security in the hope that market conditions will improve or dispose of it gradually through the regular exchange markets, the third market, and perhaps a secondary distribution of a portion of the block. Such a gradual disposition may take considerable time and often results in the fund realizing substantially less for the securities than if it had been able to dispose of the entire block promptly. In any event, it makes difficult the prompt execution of investment decisions and the reinvestment of funds.

D. INVESTMENT PERFORMANCE

1. Introduction

In determining whether any further restrictions on investment company size are necessary for the protection of investment company shareholders, an important factor to be considered is the investment performance of the funds at the extreme ends of the size spectrum relative to the performance of all funds. The advantages and disadvantages relating to fund size discussed earlier—operating expenses, portfolio turnover, portfolio flexibility, and management resources—are reflected in performance records.

The Wharton Report examined the relationships between mutual fund size and performance for the 5¾-year period, January 1, 1953 to September 30, 1958. It found no evidence that the performance. records, unadjusted for portfolio composition, of the largest funds differed substantially from those of the intermediate size funds. It also found that the funds with assets of over $1 million and under $10 million at the end of the period[12] had not performed as well as others, but that this disparity was largely attributable to differences in portfolio structure—the smaller funds in general maintained a larger proportion of their assets in cash, and other short-term securities than did other funds throughout the period studied.[13]

The Commission's staff examined the investment performance[14] of 228 and 150 mutual funds for the 5-year period 1961–1965, and the 10-year period 1956–1965, respectively.[15] Performance records of individual funds were compared only to the median[16] performance record for all funds in the same investment-objective category, since differences in performance unrelated to size are to be expected among funds with different investment objectives.[17]

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[12] The Wharton study excluded funds of $1 million or less in size, so that its smallest size category consisted of funds of over $1 million and under $10 million.

[13] Wharton Report, 18, 133, 294, 296–311.

[14] Mutual fund investment performance for the purpose of this analysis was defined as the change, during the period of time under discussion, in the net asset value per share (adjusted to reflect the acceptance of capital gains distributions in additional shares) plus the cash dividends paid during the period from net investment income (adjusted to reflect dividends paid on such additional shares) as a percent of the starting net asset value per share.

[15] The funds studied include all funds listed in the performance comparisons of Arthur Wiesenberger & Co., Investment Companies, 1966, which were in operation for the full respective periods and all funds with net assets of less than $20 million at Dec. 31, 1965, meeting the same operating requirements.

[16] The term "average" as used hereafter in this chapter refers to the median.

[17] The investment objective classifications were based on the funds' representations of investment policy as indicated in their current prospectuses.

For the 5 and 10-year periods there were 104 and 50 funds, respectively, classified as growth funds. These funds have as their primary objective capital growth. Generally, they invest in common stocks.

The growth-income category consists of 65 and 53 funds for the 5- and 10-year periods, respectively, that have an investment objective of capital growth and income, with emphasis on each of these considerations varying among the funds. These funds invest primarily in common stocks.

There were 44 "balanced funds" with 5-year records and 39 with 10-year records. While the term "balanced fund" relates to the portfolio composition of a fund rather than to its investment objectives, it is used here to denote those funds which, through maintenance of a balance of investments in common stocks, preferred stocks, and bonds, seek some measure of capital growth, current income, and relative price stability. The relative emphasis on each of these considerations varies within this group.

For the 5- and 10-year periods there were 15 and 8 funds, respectively, classified as income funds having as their primary objective current income. They invest to varying degrees in common stocks, preferred stocks, and bonds.

A study of fund size and investment performance is necessarily complicated by the fact that most funds have grown during the past 5 and 10 years. For many funds this growth has been substantial. Thus, if funds were classified on the basis of their end-of-period assets, the small fund categories would exclude those funds that grew out of the categories by the end of the periods, possibly because of superior performances. Similarly, the classification of large funds on the basis of end-of-period assets would include in the large fund category those funds which were not large throughout the period.

On the other hand, the classification of funds on the basis of beginning-of-period assets would include in the small fund categories some funds that were not small during the entire period. Indeed, it would include one fund that grew from under $5 million to over $600 million during the 5-year period, 1960–65. With respect to large funds, a beginning-of-period test would exclude from the large fund category those funds which grew into and remained within that category for virtually all or a major part of the period studied. For these reasons, neither system of size classification is entirely satisfactory.

In recognition of these factors, the staff's study used a beginning-of-period assets test for the small fund categories to include all funds that began the periods studied as small funds. The performance records of these funds were examined in groups based on both beginning- and end-of-period assets. An end-of-period asset test was used for large funds to include all funds that had become large by the end of the periods studied. As in the case of the small funds, however, large funds also were grouped on the basis of their beginning- and end-of-period assets,

2. The smallest funds (under $1 million at beginning of period)

Table VI-2 compares for the 5- and 10-year periods ended December 31, 1965, the performance records of each fund in the smallest size category—under $1 million at the beginning of the period—with the average performance records of all funds in the same investment-objective category. The smallest funds are subclassified into three groups—those with end-of-period assets of less than $1 million, those

TABLE VI–2.—*Performance of the smallest mutual funds for the 5- and 10-year periods ended Dec. 31, 1965*

Beginning-of-period net assets (millions of dollars)	End-of-period net assets (millions of dollars)	All smallest funds	Funds performing above and below the average of all funds in the same investment-objective category	
			Above•	Below
5-year period:				
Under 1	Under 1	18	5	13
Do	1 to under 5	17	13	4
Do	5 and over	10	6	4
Total		45	24	21
10-year period:				
Under 1	Under 1	4	0	4
Do	1 to under 5	6	1	5
Do	5 and over	5	4	1
Total		15	5	10

• Includes those funds with performance at the average.

with $1 million to under $5 million, and those with $5 million and over.[18] The table shows the number of funds in each of these size classifications with performance records above and below the average for all funds in the same investment-objective category.[19] For the 5-year period, 24 of the 45 smallest funds had above average performance records, but for the 10-year period, only 5 of 15 of the smallest funds had performance records that were above average.

The classification of the smallest funds on the basis of their end-of-period asssets shows a markedly different picture. For both the 5- and 10-year periods, the funds that performed above average tended to grow out of the under $1 million group. For the 5-year period, 19 of the 27 funds that grew out of the under $1 million group had above average performance, while only 5 of the 18 funds that remained in this size group performed above average. For the 10-year period, 5 of the 11 funds that grew out of the under $1 million group had above average performance, while none of the 4 funds that remained performed above average.

Among the funds that remained within the under $1 million category there was wide variation among the performance records of the funds. Some of these funds performed far above average while the performance of others was well below the average including one fund with a negative performance record. There was no relationship between size and performance for these funds with some of the better performing funds being among the smallest in this group and some of the poorer performing funds among the largest funds in the group.

During the 5-year period, 13 of the 17 funds with end of the period assets of $1 million to under $5 million and 6 of the 10 funds with assets of $5 million or over had above average performance records. Although for the 10-year period the smallest funds that grew into the $1 million to under $5 million category tended to perform more poorly than the average, four of the five smallest funds that grew to $5 million or over by the end of the 10-year period performed above average. Thus, performance records for the smallest funds indicate that the better performing funds had a tendency to grow out of the smallest size category. Only those that stayed under $1 million during the periods tended to have below average performance.

3. *The small funds ($1 million to under $5 million at beginning of period)*

Table VI–3, at page 260, infra, compares for the 5- and 10-year periods ended December 31, 1965, the performance records of each fund in the small category—$1 million to under $5 million at the beginning of the periods—with the average performance records of all funds in the same investment-objective category.[20] The small funds also are subclassified into three groups—those with end-of-period assets of $1 million to under $5 million, $5 million to under $15 million, and $15 million and over.

For both the 5- and 10-year periods, the performance records of the small funds were almost evenly divided between those with above

[18] Table VI–5 at p. 264, infra, shows by investment-objective category the smallest funds that performed above and below average, and tables VI–8 to VI–15 at pp. 266–273, infra, show the distribution of their performance records.

[19] Funds with performance records at the average are included in the above-average group.

[20] Table VI–6 at p. 264, infra, shows by investment-objective category the small funds that performed above and below average, and tables VI–8 to VI–15 at pp. 266–273, infra, show the distribution of tbeir performance records.

average and those with below average records. During the 5-year period 22 of the 45 funds, and during the 10-year period 16 of the 31 funds, performed above average.

TABLE VI-3.—*Performance of small mutual funds for the 5- and 10-year periods ended Dec. 31, 1965*

Beginning-of-period net assets (millions of dollars)	End-of-period net assets (millions of dollars)	All small funds	Funds performing above and below the average of all funds in the same investment-objective category	
			Above	Below
5-year period:				
1 to under 5	1 to under 5	19	5	14
Do	5 to under 15	19	10	9
Do	15 and over	7	7	0
Total		45	22	23
10-year period:				
1 to under 5	1 to under 5	6	2	4
Do	5 to under 15	9	3	6
Do	15 and over	16	11	5
Total		31	16	15

Like the smallest funds, however, the small funds showed performance records which differed markedly on the basis of their end-of-period assets. For the 5-year period only 5 of the 19 small funds that remained within the categorv performed above average, while 10 of the 19 funds that had $5 million to under $15 million in assets at the end of the period and all 7 of the funds that grew to over $15 million by the end of tho period performed above agerage. For the 10-pear period 11 of the 16 funds that grew to $15 million and over by the end of the period performed better than average but only a third of the funds that remained in the $1 million to $5 million size group—those that did not experience such substantial growth—performed better than average.

4. The large funds ($300 million and over at end of period)

Table VI-4, at page 261, infra, compares for the 5- and 10-year periods ended December 31, 1965, the performance records of each fund in the large size category—$300 million and over at the end of the period—with the average performance records for all funds in the same investment-objective category.[21] The large funds also are classified into three groups—those that started the period with assets of under $100 million, $100 million to under $300 million, and $300 million and over.

For both the 5- and 10-year periods, a majority of the large funds performed above average—21 of 30 funds for the 5-year period and 18 of 26 funds for the 10-year period. Among the large funds, however: the funds that were smaller at the beginning of the periods had better performance records than the other large funds. Thus, for the 5-year period all 4 of the funds with net asests of under $100 million at the beginning of the period performed above average, while 7 of the 10 with beginning-of-period assets of $300 million or

[21] Table VI-7 at p. 265, infra, shows by investment-objective category the large funds that performed above and below average, and tables VI-8 to VI-15 at pp. 266-273, infra, show the distribution of their performance records.

TABLE VI-4.—*Performance of large mutual funds for the 6- and 10-year periods ended Dec. 31, 1966*

End-of-period net assets (millions of dollars)	Beginning-of-period net assets (millions of dollars)	All large funds	Funds performing above and below the average of all funds in the same investment-objective category	
			Above.	Below
byear period:			4	
300 and over	Under 100	4	0	0
Do	100 to under 300	16	19	6
Do	300 and over	10		3
Total		30	21	9
10-year period:			9	
300 and over	Under 100	11	7	2
Do	100 to under 300	10	2	3
Do	300 and over	5	2	
Total		26	18	8

[a] Includes those funds with performance at the average.

over performed above average. Similarly, for the 10-year period, 9 of the 11 funds that had net assets of under $100 million at the beginning of the period had above average performance, while only 2 of the 5 funds with assets of $300 million and over at the beginning of the period had above average performance. Of the funds that started the period with assets of $100 million to under $300 million, 10 of 16, and 7 of 10 performed above average for the 5- and 10-year periods, respectively.

5. The largest funds ($1 billion and over at end of period)

Eight of the funds studied ended the period with assets of over $1 billion. Three of these funds had below average performance for the 5-year period, while half of the eight had below average performance for the 10-year period. The four largest funds, with end-of-period assets ranging from $1.8 billion to $3.0 billion, all had below average performance for the longer period, while three had below average performance for the shorter period. The performance of these funds, however, was only slightly below average.

The investment performance of the growth and growth-income funds managed by Investors Diversified Services, Inc., the largest mutual fund complex,[22] and the performance of five other growth and growth-income funds with assets of over $1 billion was analyzed to test the effects, if any, of fund growth on performance.[23] For this purpose the annual performance records of these funds were compared with the percentage change in the Standard & Poor's Common Stock Index, plus the yield on that index, going back to 1940 or the fund's first full year of operation. The purpose of this comparison was not to

[22] The four mutual funds in the IDS complex with June 30 1966 assets of $5.2 billion comprise by far the largest investment company complex. One of these mutual iunds was the largest in the industry—Investors Mutual, Inc., a balanced fund with assets of $2.8 billion. Two others—Investors Stock Fund, Inc., a growth-income fund with assets of $1.7 billion and Investors Variable Payment Fund, Inc., a growth fund with assets of $560 million—also were among the largest mutual funds. The fourth, Investors Selective Fund, Inc., is a bond and preferred stock fund with June 30, 1966 assets of $44 millicn. The next largest complex, consisting of Massachusetts Investors Trust (June 30, 1966 net assets of $2.1 billion) and Massachusetts Investors Growth Stock Fund, Inc. (June 30, 1966 net assets of $931 million) is less than three-fifths the size of the IDS complex.

[23] Another billion dollar growth fund, Insurance Securities Trust Fund, which invests only in insurance and bank stocks, was excluded because of the specialized nature of its portfolio.

determine whether these funds performed better or worse than this measure of market performance but rather to see if the performance of these funds relative to this measure was affected by their growth.

In general, the analyses indicate that there has been no consistent pattern of change in the relative performance of these funds as their assets have grown. In some instances the relative performance of the fund has improved with growth, while in others relative performance has declined; in still others no pattern is discernible.

Since the largest fund is a balanced fund, relating its performance to a common stock index would be inappropriate. For this reason the annual performance records of this and another balanced fund with over $2 billion in assets were compared to the annual performance records of all balanced funds for the last 10 years.[24] Both of these funds had slightly below average performance records for the full 10-year period. The largest fund performed at or above the average for all balanced funds during 8 of the past 10 years. The other fund has performed below average in 4 of the 10 years including each of the last 3 years.

E. CONCLUSIONS

Although the performance records of the small and the smallest funds showed wider dispersion than those of other funds, about as many of these funds performed above the average for all funds in the same investment-objective categories as performed below the average. Moreover, the growth patterns of the small and smallest funds bear a positive relationship to performance. The funds in these size categories at the beginning of the period which performed above average tended to move into a larger size group, while those that performed below average did not show substantial growth. Among the funds which remained in the smallest size category there was no relationship between performance and size. In view of these factors, the Commission does not at the present time recommend changes in the present $100,000 minimum capital requirement of the Act.

[24] For this comparison the 39 balanced funds with 10-year performance records dating back to 1956 were used.

With respect to the need for maximum size restrictions, the performance of the largest funds during the past 5- and 10-year periods on the whole has been no better than that of all funds in similar investment-objective categories. Although the largest funds have lower operating expense ratios, lower portfolio turnover rates and greater management resources, these funds have not had superior performance as would be expected. Their many advantages have been apparently offset by the lack of portfolio mobility and flexibility attributable to their size. While these funds' lack of mobility and flexibility has not had so adverse an effect on their shareholders as to require that maximum size limitations be imposed on individual funds and fund complexes, the performance of these funds has not been enhanced by their growth. Accordingly, there is no reason to believe that the shareholders of the largest funds would benefit from further growth.

Since 1940 and particularly during the past 10 years the growth of the mutual fund industry and that of many individual funds and fund complexes has far outpaced the growth of the securities markets and various indicia of basic economic growth. The large fund and fund complexes of but a few years ago were small in comparison to those of multibillion dollar funds and fund complexes of today. Should the growth of the largest funds and fund complexes continue, these funds might soon reach the point—relative to the size and conditions of the markets and the economy—where their portfolio mobility would be so seriously impaired as to affect gravely the interests of their shareholders. It is indeed possible that the future investment experience of the largest funds, even if their sizes were to continue near the present levels achieved only recently, might be so affected. This is underscored by the fact that other institutional investors, pension funds in particular, have also enjoyed phenomenal growth and are contributing to the growing problems of portfolio mobility. For these reasons, questions pertaining to large fund size and to the need for maximum size limitations on individual funds and fund complexes must be reexamined periodically in the context of the changing conditions in the securities markets and the economy.

SUPPLEMENTAL TABLES

TABLE VI-5.—*Performance of the smallest mutual funds [a] by size and investment objective for the 5- and 10-year periods ended Dec. 31, 1965*

Beginning-of-period net assets (millions of dollars)	End-of-period net assets (millions of dollars)	Funds with performance records above [b] and below the average of all funds in the same investment-objective category							
		Growth		Growth-income		Balanced		Income	
		Above	Below	Above	Below	Above	Below	Above	Below
5-year period:									
Under 1	Under 1	5	10	-	3	-	-	-	-
Do	1 to under 5	8	2	3	1	1	1	1	-
Do	5 and over	4	2	-	1	-	-	2	1
Total		17	14	3	5	1	1	3	1
10-year period:									
Under 1	Under 1	-	3	-	1	-	-	-	-
Do	1 to under 5	1	2	-	2	-	1	-	-
Do	5 and over	4	1	-	-	-	-	-	-
Total		5	6	0	3	0	1	0	0

[a] Includes all funds studied with beginning of the period assets of under $1,000,000.
[b] Includes those funds at the median.

TABLE VI-6.—*Performance of small mutual funds [a] by size and investment objective for the 5- and 10-year periods ended Dec. 31, 1965*

Beginning-of-period net assets (millions of dollars)	End-of-period net assets (millions of dollars)	Growth		Growth-income		Balanced		Income	
		Above	Below	Above	Below	Above	Below	Above	Below
5-year period:									
1 to under 5	1 to under 5	3	6	-	5	2	3	-	-
Do	5 to under 15	6	4	1	4	3	1	-	-
Do	15 and over	6	-	1	-	-	-	-	-
Total		15	10	2	9	5	4	0	0
10-year period:									
1 to under 5	1 to under 5	-	1	-	2	2	1	-	-
Do	5 to under 15	1	-	-	3	2	3	-	-
Do	15 and over	3	1	5	2	2	2	1	-
Total		4	2	5	7	6	6	1	0

[a] Includes all funds studied with beginning-of-period assets of $1,000,000 bo under $5,000,000.

TABLE VI–7.—*Performance of large mutual funds by size and investment objective for the 5- and 10-year periods ended Dec. 31, 1965* [a]

End-of-period net assets (millions of dollars)	Beginning-of-period net assets (millions of dollars)	Funds with performance records above [b] and below the average of all funds in the same investment-objective category							
						Balanced		Income	
		Above	Below	Above	Below	Above	Below	Above	Below
5-year period:									
300 and over.	Under 100	3						1	
Do	100 to under 300	3	2	7	2		2		
Do	300 and over	2		5	1		2		
Total		8	2	12	3	0	4	1	0
10-year period									
300 and over.	Under 100	4		4	2			1	
Do	100 and under 300.	2		3	3	2			
Do	300 and over			2	1		2		
Total		6	0	9	6	2	2	1	0

[a] Includes all funds studied with end-of-period assets of $300,000,000 or over.
[b] Includes those funds at the median.

TABLE VI-8.—*Performance of growth funds, by site, for the 5-year period 1961-66*

[Assets at beginning (upper line) and end of period (lower line); millions of dollars]

Performance records (percent)	All funds [a]	Smallest funds			Small funds			Large funds		
		Under 1 Under 1	Under 1 1 to under 6	Under 1 5 and over	1 to under 5 1 to under 5	1 to under 6 5 to under 15	1 to under 5 16 and over	Under 100 300 and over	100 to under 300 300 and over	300 and over 300 and over
Negative	2	1								
0 to 19	3	2			1					
20 to 39	14	5		1	2	1				
40 to 59	19	1	2	1	1	2				
60 to 79	31	3	2	2	3	2			3	2
80 to 99	17	1	3	1	2	4	2	1	1	
100 to 119	9	1	2			1	1		1	
120 to 139	2							1		
140 to 159	4	1	1	1			1			
160 and over	3						[b] 2	[b] 1		
Total	104	15	10	6	9	10	6	3	5	2
Range	(26)% 251	(26)% 154	(42)% 140	33% 147	6% 94	34% 101	92% 251	81% 251	64% 100	66% 69

[a] The median performance record for all growth funds was 66 percent.
[b] Includes one fund which had between $1 million and $5 million at the beginning of the period and over $300 million at the end of the period.

TABLE VI–9.—*Performance of growth-income funds, by size, for the 5-year period 1961–65*

[Assets at beginning (upper line) and end of period (lower line); millions of dollars]

Performance records (percent)	All funds [a]	Smallest funds			Small funds			Large funds		
		Under 1 Under 1	Under 1 1 to under 5	Under 1 5 and over	1 to under 5 1 to under 5	1 to under 5 5 to under 15	1 to under 5 15 and over	Under 100 300 and over	100 to under 300 300 and over	300 and over 300 and over
0 to 19	1				1					
20 to 39	2									
40 to 59	13	2		1	3	1			1	1
60 to 79	37	1	3		1	3			7	4
80 to 99	11					1	1		1	1
100 and over	1		1							
Total	65	3	4	1	5	5	1	0	9	6
Range	19% 107	48% 62	67% 107	53% 53	19% 67	59% 88	87% 87		52% 87	56% 80

[a] The median performance record for all growth-income funds was 70 percent.

TABLE VI–10.—*Performance of balanced funds, by size, for the 6-year period 1961–65*

[Assets at beginning (upper line) and end of period (lower line); millions of dollars]

Performance records (percent)	All funds a	Smallest funds			Small funds			Large funds		
		Under 1 Under 1	Under 1 1 to under 5	Under 1 5 and over	1 to under 5 1 to under 5	1 to under 5 5 to under 15	1 to under 5 15 and over	Under 100 300 and over	100 to under 300 300 and over	300 and over 300 and over
Under 40	1		1							
40 to 59	30				3	2			2	2
60 to 79	10				1	1				
80 to 99	2		1		1					
100 and over	1					1				
Total	44	0	2	0	5	4	0	0	2	2
Range	39% 151		39% 83		47% 83	54% 151			49% 52	44% 49

a

TABLE VI–11.—*Performance of income funds, by size, for the 5-year period 1961–66*

[Assets at beginning (upper line) and end of period (lower line); millions of dollars]

Performance records (percent)	All funds [a]	Smallest funds			Small funds			Large funds		
		Under 1 Under 1	Under 1 1 to under 5	Under 1 5 and over	1 to under 5 1 to under 6	1 to under 5 5 to under 16	1 to under 5 15 and over	Under 100 300 and over	100 to under 300 300 and over	300 and over 300 and over
40 to 59	2			1						
60 to 79	8			2						
80 to 99	5		1					1		
Total	15	0	1	3	0	0	0	1	0	0
Range	52% 95		82% 82	58% 76				93% 93		

[a] The median performance record for all income funds was 64 percent

TABLE VI-12.—*Performance of growth funds, by size, for the 10-year period 1956-65*

[Assets at beginning (upper line) and end of period (lower line); millions of dollars]

Performance records (percent)	All funds [a]	Smallest funds			Small funds			Large funds		
		Under 1 Under 1	Under 1 1 to under 5	Under 1 5 and over	1 to under 5 1 to under 5	1 to under 5 5 to under 15	1 to under 5 15 and over	Under 100 300 and over	100 to under 300 300 and over	300 and over 300 and over
Under 60	3	1								
60 to 79	5						1			
80 to 99	4		1	1						
100 to 119	4	2								
120 to 139	3		1							
140 to 159	2									
160 to 179	13				1	1	1			
180 to 199	3			2						
200 to 219	3							1	2	
220 to 239	8			2			2	2		
240 and over	2		1					1		
Total	50	3	3	5	1	1	4	4	2	0
Range	17% 326	17% 111	94% 290	89% 231	163% 163	174% 174	69% 221	208% 326	201% 219	

[a] The median performance record for all growth funds was 167 percent.

TABLE VI-13.—*Performance of growth-income funds, by size, for the 10-year period 1956-65*

[Assets at beginning (upper line) and end of period (lower line); millions of dollars]

Performance records (percent)	All funds [a]	Smallest funds			Small funds			Large funds		
		Under 1 Under 1	Under 1 1 to under 5	Under 1 5 and over	1 to under 5 1 to under 5	1 to under 5 5 to under 15	1 to under 5 15 and over	Under 100 300 and over	100 to under 300 300 and over	300 and over 300 and over
60 to 79	1									
80 to 99	2	1			1					
110 to 119	8		2		1	1		1	1	
120 to 139	12					2	2	1	1	1
140 to 159	19						2	2	4	1
160 to 179	6						2	1		
180 to 199	5						1	1		1
Total	53	1	2	0	2	3	7	6	6	3
Range	74% 192	92% 92	109% 114		86% 102	86% 133	127% 180	117% 192	108% 148	137% 185

[a] The median performance record for all growth-income funds was 143 percent.

TABLE VI-14.—*Performance of balanced funds, by size, for the 10-year period 1966–65*

[Assets at beginning (upper line) and end of period (lower line); millions of dollnrs]

Performancerecords (percent)	All funds [a]	Smallest funds			Small funds			Large funds		
		Under 1 Under 1	Under 1 1 to under 5	Under 1 6 and over	1 to under 5 1 to under 5	1 to under 5 5 to under 15	1 to under 5 15 and over	Under 100 300 and over	100 to under 300 300 and over	300 and over 300 and over
80 to 99	15		1		1	2	2			1
100 to 119	18				1	2	1		1	1
120 to 139	1								1	
140 to 159	3				1		1			
160 to 179	1									
180 to 199	1					1				
Total	39	0	1	0	3	5	4	0	2	2
Range	83% 188		97% 97		83% 154	88% 188	95% 143		118% 127	97% 102

[a] The median performance record for all balanced funds was 104 percent.

TABLE VI–15.—*Performance of income funds*, by *size, for the 10-year period 1956–65*

[Assets at beginning (upper line) and end of period (lower line); millions of dollars]

Performance records (percent)	All funds [a]	Smallest funds			Small funds			Large funds		
		Under 1 Under 1	Under 1 1 to under 5	Under 1 5 and over	1 to under 5 1 to under 5	1 to under 5 5 to under 15	1 to under 5 15 and over	Under 100 300 and over	100 to under 300 300 and over	300 and over 300 and over
80 to 99	5									
100 to 119	1									
120 and over	2						1	1		
Total	8	0	0	0	0	0	1	1	0	0
Range	81% 162						122% 122	162% 162		

[a] The median performance record for all income funds was 91 percent.