stocks with turnover rates in excess of 10 percent (Westinghouse Electric, American Telephone & Telegraph, Gulf Oil, International Business Machines, Phillips Petroleum, and Socony Mobil), the number of quarters in which the funds accounted for more than 10 percent of the market trading ranged from three to seven with a median number of quarters of six. The funds' turnover rates were rather low, on the other hand, for those stocks in which the funds consistently accounted for a high percentage of market activity. Of the seven stocks, excluding Kennecott Copper, in which the funds' share of the market volume exceeded 10 percent in 10 or more of the 13 quarters, the annual turnover rates in the 1956–57 period varied between 2.3 percent and 7.2 percent, with a median rate of 5.2 percent.

There is little suggestion that the funds attained a high percentage of market activity in the individual stocks on either increases or decreases in volume. For four of the eight stocks in which the funds' share of the market volume exceeded 10 percent in 10 or more out of 13 quarters, the percentage share reached this relatively high level when the market volume declined in a larger number of cases than when it increased (table IV-90). For only two of the eight stocks the high percentage share of the market was attained when the market volume increased in a larger number of instances than when it declined. In the remaining two stocks, the high percentage share of the market was attained as frequently when the market volume rose as when it fell. Considering all 30 stocks, there were 14 stocks in which a market share exceeding 10 percent was attained more frequently when the market volume declined than when it rose, and there were 12 stocks in which the high market share was reached more frequently when the market rose. For the remaining four stocks the high percentage share of the market was attained as frequently when the market volume rose as when it fell. Of a total of 201 instances in which the funds accounted for over 10 percent of the quarterly market volume in one of the 30 stocks, 104 were occasions of declines in total market volume and 97 were periods of increases.

Considerable variation occurred in the actual percentage shares of the market acquired by the funds in each of these stocks, and some of the very large percentages, for example those of the utility companies (Central & South West and General Public Utilities) in 1958, are to be interpreted with caution, in view of the absence of precise knowledge as to the actual markets in which the funds' transactions were effected, and in view of the conventions adopted for purpose of analysis. It is noteworthy, however, that in the last three quarterly periods of the study, the funds accounted for a large share of market activity (in excess of 10 percent) in a consistently large number of stocks (19, 23, and 25 respectively). The greater number of high market shares in the quarterly periods here under study is an indication again that the funds' trading in this sample of high grade stocks has become more important both for the funds' total portfolio trading, and for the formation and structure of total market activity.

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INVESTMENT FUNDS' NET PURCHASES OF EACH OF THE SAMPLE 30 STOCKS IN RELATION TO MARKET PRICE CHANGES

The analysis of the funds' trading in the sample 30 stocks is directed in this section to changes in net purchases in relation to changes in the average market prices of the stocks. The data on which the analysis and conclusions have been based are summarized in tables IV-91 and IV-92. Table IV-92 summarizes the directions of change of the average monthly trading price of each of the stocks and compares this with the change during the same month in the net purchases of the stock by all investment funds combined.⁷⁰ While the patterns of price changes vary from one stock to another, it will be noted that as a whole the price variations assume the same general pattern as was indicated by the Dow-Jones industrial average in the earlier analysis of the investment funds' total stock portfolio activity. The price cycles of 1956 emerge in the individual stocks, though, of course, the timing is not uniform, and in the majority of cases a weaker price tendency appeared in the longer downswing in the second half of 1957 followed by firmer prices in the market upswing in 1958.

TABLE IV-91.—Summary of comparisons between changes in monthly average market prices and investment fund monthly net purchases of sample 30 stocks, August 1955 to September 1958

	Number of n	nonths out of a lati	88 possible inst ons were obser	ances in which ved	n specified re-
Stock		Market price increased and fund net purchases decreased	Market price decreased and fund net purchases increased	Market price and fund net purchases both in- creased	Market price and fund net purchases both de- creased
	(1)	(2)	(3)	(4)	(5)
Aluminium Ltd Amerada American Telephone & Tele-	20 13	9 5	11 8	8 15	10 10
graph Armco Steel Atchison, Topeka & Santa Fe	23 16 16	14 11 5	9 5 11	8 12 13	7 10 9
Bethlehem Steel Central and South West Continental Oil	17 1 20 14	11 13 8	666	13 9 13	8 9 11
Du Pont Firestone General Electric General Motors	21 21	9 14 12 7	10 7 9 8	8 11 10 12	11 6 7
General Public Utilities Goodrich	22 23 18	11 12 11	11 11 7	12 8 7 12	888
Gulf Öil		11	11	10	Ē

¹ Including 1 month in which there was no change in net purchases. The sums of columns (2) through (5) will equal 38 unless there were months in which there was no change in net purchases. Column (6) plus column (7) will equal 38, as will also the sum of columns (8) through (11), unless there were months in which the funds had no transactions.

⁷⁹ The monthly change in the trading price of the stock has been taken for this purpose as the change in the average of the open, close, high, and low quotations for the month. This, therefore, is the same average monthly price as was employed in computing the monthly value of total market trading in the stocks, as employed in the foregoing analysis. Throughout this analysis a change from a net purchaser to a net seller position is taken as a reduction of net purchases. Similarly, a change from a net seller to a net purchaser position, or a reduction of net sales is taken as an increase in net purchases.

TABLE IV-91Summary of comparisons between changes in monthly ave	rage
market prices and investment fund monthly net purchases of sample 30 sto	cks,
August 1955 to September 1958-Continued	,

Number of months out of 38 possible instances in which specified relations were observed											
Funds were net urchasers	Funds were net sellers	Market price increased while funds were net purchasers	Market price decreased while funds were net purchasers	Market price increased while funds were net sellers	Market price decreased while funds were net sellers						
(6)	(7)	(8)	(9)	(10)	(11)						
$\begin{array}{c} 22\\ 30\end{array}$	16 8	8 17	14 13	9 3	75						
19 31 14	19 7 23	11 18 8	8 13 6	11 5 10	8 2 13 9						
20 29	14 9	11 17	$9 \\ 12$	8 4	9 6 5						
31 21 19	6 17 19	$ \begin{array}{c} 11 \\ 22 \\ 13 \\ 14 \end{array} $	9 8	3 9	3 8 14						
22 10 34 29	15 28 4 9	10 5 20 16	12 5 14 13	9 14 3 5	6 14 1 4						
2	(6) (6) (22 30 19 31 14 14 20 22 29 21 31 21 19 31 21 19 22 30	Funds vere net irchasers Funds were net sellers (6) (7) 22 16 30 30 8 19 19 31 7 14 20 22 16 30 31 7 14 23 14 24 20 14 21 17 31 6 21 17 19 19 22 15 10 28	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Funds vere net inchasers Funds sellers Market price increased sellers Market price increased while funds were net purchasers Market price decreased while funds were net purchasers (6) (7) (8) (9) 22 16 8 14 30 8 17 13 19 19 11 8 31 7 18 13 14 24 9 5 20 14 11 9 21 17 11 10 31 6 22 9 21 17 13 8 19 19 14 5 20 14 11 10 31 6 22 9 21 17 13 8 19 19 14 5 22 15 10 12	Funds vere net increasersFunds price increased were net sellersMarket price increased while funds were net purchasersMarket price decreased while funds were net purchasersMarket price decreased while funds were net purchasersMarket price while funds were net purchasersMarket price while funds were net purchasers(6)(7)(8)(9)(10)22168149308171331919118113171813514249515201411982091712421171106316229322151012910285514						

Market price and fund net purchases changed in opposite directions Market price increased and fund net purchases decreased Market price decreased and fund net purchases increased Market price and fund net purchases both in-creased Market price and fund net purchases both de-creased Stock (1) (2) (3) (4) (5) IBM_ International Paper Kennecott Copper... National Lead Phillips Petroleum Shell Oil. Standard Oil (California)... Standard Oil (Indiana)... Standard Oil (Indiana)... Standard Oil (Indiana)... Standard Oil (New Jersey)... Pexas Co. Union Carbide United States Steel. Westinghouse $\begin{array}{c} 22\\ 25\\ 12\\ 20\\ 14\\ 17\\ 19\\ 18\\ 24\\ 20\\ 20\\ 15\\ 18\\ \end{array}$ $\begin{array}{r}
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TABLE IV-91.—Summary of comparisons between changes in monthly average market prices and investment fund monthly net purchases of sample 30 stocks, August 1955 to September 1958—Continued

	Number of months out of 38 possible instances in which specified relations were observed										
Stock	Funds were net purchasers	Funds were net sellers	Market pricc increased while funds were net purchasers	Market price decreased while funds were net purchasers	Market price increased while funds were net sellers	Market price decreased while funds were net sellers					
	(6)	(7)	(8)	(9)	(10)	(11)					
IBM International Paper. Kennecott Copper. National Lead Phillips Petroleum Shell Oil Standard Oil (California). Standard Oil (Indiana). Standard Oil (Indiana). Standard Oil (Indiana). Texas Co. Union Carbide. United States Steel. Westinghouse.	15 23 18 19 21 28 29 27 34 17 29	8 17 22 20 18 17 10 7 11 4 21 9 8 18	20 9 8 15 12 14 15 15 14 20 20 10 21 10	$ \begin{array}{c} 10\\ 11\\ 7\\ 8\\ 6\\ 9\\ 13\\ 14\\ 13\\ 14\\ 7\\ 8\\ 10\\ 10\\ \end{array} $	7 9 9 7 9 9 7 5 2 2 5 2 10 3 7	$\begin{array}{c} 1\\ 8\\ 13\\ 6\\ 11\\ 9\\ 9\\ 10\\ 5\\ 5\\ 6\\ 2\\ 2\\ 11\\ 6\\ 11\\ 11\end{array}$					

TABLE IV-92.—Changes in average monthly market prices and changes in open-end investment fund monthly net purchases of each of sample 30 stocks, August 1955 to September 1958

Year and month	Aluminium Ltd.		Ame	Amerada		American Telephone & Telegraph		nco	Atchison, Topeka & Santa Fe	
	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases
1955-August September December Potober December Potober Pebruary March July July August September October November December December August April March April May July September October November December July July August September October November December September August September July June July June July June July June July September	(-) (+) (+)		EFFETITITITIEFFUEFFUEFUEFUEFUEFUE	EEEUEEUEEUEUEUEUEEUEEUEEUEEUEEUEEUEU	EFFETTIEFUTETETETETITETETETETETETETETETETETETETET	IIIIEEIEEIEIEIIIEIIEEIIEEIEEIEEIEEIEE			EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE	

TABLE IV-92.—Changes in average monthly market prices and changes in open-end investment fund monthly net purchases of each of sample 30 stocks, August 1955 to September 1958—Continued

	Bethlehem Steel		Central and South West		Continental Oil		Du Pont		Firestone	
Year and month	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases
1955—August September October November December 1956—January February March April May June July September October November December 1957—January February March April May June July February May July August September October December July August September December December December November December December May June June December December May March August September June June June June June June May August August September	EFFETTETTTTTTTTTTTTTTTTTTTTTTTTT	ELECTREFIEITIELITETETETETETETE	II FFIITEII I I I I I I I I I I I I I I I I I	ILETETIETIETIETIETEETIETITETITETI		IFFETERIFULTIFULFULFULFULFULFULF	TITEITETTITITITITITITITITITITI		TELETITETITETITETITETITETITETITETITET	INFILTERIERIERIERIERIERIERIERIERIER

¹ No change.

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TABLE IV-92.—Changes in average monthly market prices and changes in open-end investment fund monthly net purchases of each of sample 30 stocks, August 1955 to September 1958—Continued

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		neral etric		ieral tors		l Public ities	Goodrich		Goodyear	
Year and month	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases
1955-August September October December December 1956-January April Maya June July August September October November December 1967-January Kebruary March April Maya June June June June June June June June June June June June June June September October November December December December December Jester September July August September July Maya June July Maya June July Maya June July August September July June July August September September	EFERIMENTIEFTIEFTIEFTIEFTIEFEETU	EFFILIEITIEFFITTEFITTETTETTETTET	EFFETTETTETTETTTETTTETTETTETTETE		EIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	IEFFIIITEFIETEFIETEFIETEFIETEFIETEFIETE		EIEIIEIEIEIEIIEIIIEIIEIEIEIEIEIEIEIE	EFFETTIEFTTEFTEFTEFTTEFTTEFTTEFT	

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Year and month	Gulf Oil		International Business Machines		International Paper			lecott oper	National Lead	
i	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases
1955-Angust September October December December 1956-January March April May July August September October November December 1967-January March April May April May June November December 1967-January March September October November July August September October November December December December December November December December November December December May June May June June June June June May June June May June June June June June September September	JJ. H. H. H.	IELECTETIETIETIETIETIETIETIETIETIETIETE			EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE		ETETETITITITITITITITETITITETITITETITI	IEILELLETETETETETETETETETETETETETE		

TABLE IV-92.—Changes in average monthly market prices and changes in open-end investment fund monthly net purchases of each of sample 30 stocks, August 1955 to September 1958—Continued

TABLE IV-92.—Changes in average monthly market prices and changes in open-end investment fund monthly net purchases of each of sample 30 stocks, August 1955 to September 1958—Continued

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		llips oleum	Shel	Shell Oil		Socony Mobil		Standard Oil (California)		Standard Oil (Indiana)	
Year and month	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases	
1955-August September October November December 1956-January February March April May Juny Juny August September October November December 1957-January February March April May June July February March August September December 1958-January February November December Detruary March April May June Juny June Juny June July June July June July June July June						EUEEUEUEUEUEUEUEUEUEUEUEUEUEUE					

· · · · · · · · · · · · · · · · · · ·	Stand (New .	ard Oil Jersey)	Texas Company		Union Carbide		United States Steel		Westinghouse Electric	
Year and month	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases	Price	Net pur- chases
1955-August	EINEENNINEEENNEELINENNEEENE	EIETIETETETIIIEEIIETETETETETETETE		ETERLETERETERETERETERETERETERETERETERE	EFFETURE REFERENCES STREET STR	Effecteurintentententententententen	ETTELITETTITETTITETTITETTETTETTETTET	ELECTRETERIEUELECETELETELEELEELEELEELEELEELEELEELEELEELEE		

TABLE IV-92.-Changes in average monthly market prices and changes in open-end investment fund monthly net purchases of each of sample 30 stocks, August 1955 to September 1958-Continued

Nore.—Price of each security was computed as an unweighted arithmetic mean of the opening, high, low, and closing prices during the month. Net purchases of funds was computed as a dollar figure. (+) Increase. (-) Decrease.

The analysis summarized in table IV-91 indicates that the contramarket tendency previously noted in the funds' trading in all common stock combined does not emerge in the case of these individual and relatively important stocks. The first column of the table records the number of months out of a possible 38 between August 1955 and September 1958 in which the market prices of the stocks and the funds' net purchases moved in opposite directions. The evidence suggests neither a general contramarket nor a general promarket relation. Net purchases changed in a direction opposite to that of the change in market price for over half of the months in 14 of the 30 stocks, and for less than half of the months in the same number of stocks (14).

In the two other stocks net purchases moved in the same direction as the market price as often as they moved against it.⁷¹

It was found in the earlier analysis of the monthly changes in the funds' aggregate net purchases of common stocks ⁷² that a positive relation appeared between the monthly change in net purchases and the direction of change of the Dow Jones industrial average in the preceding month. In 38 months examined the funds' net purchases moved in the same direction as the market average price level in the preceding month in 23 instances, and against the market in the current month in 25 instances. The funds' trading behavior could well be as influenced by one of these sets of market price developments as the other. The subsequent quarterly analysis of changes in net purchases, after adjustment for a computed new money inflow factor, afforded a slight confirmation of the tendency for the funds to follow recent market price developments in this manner. A comparable analysis is summarized in table IV-93, therefore, indicating, for each of the sample 30 stocks examined in this section, the number of months out of a possible 37 (between September 1955 and September 1958) in which the direction of change in the funds' net purchases of each stock (a) differed from the change in the price of the stock in the current month, and (b) coincided with the change in the price of the stock in the preceding month. A test of the contra-current-market hypothesis shows the relationship confirmed, on the basis of table IV-93, in a majority of the 37 months for 16 of the 30 stocks. The table shows that the supporting-recent-trend hypothesis is confirmed in a majority of the 37 months for 14 of the 30 stocks. Of the 30 stocks, 7 show some tendency to support both hypotheses. Nine others support only the contra-current-market hypothesis, another seven give some confirmation of the second, while the remaining seven support neither hypothesis. The evidence thus casts considerable doubt on the relevance of either hypothesis for these 30 stocks. The conclusion that the funds' total trading showed some tendency to conform to these hypotheses may be justified, but the funds did not show any general tendency to conform to the same pattern for these specific stocks.

Stocks. ¹⁹ The analysis in this section is concerned with monthly changes in the absolute dollar values of the funds' net purchases of stocks. The analysis of the directions of change of the funds' relative shares of the market in these stocks (taken as the percentage of their total dollar purchases to the computed dollar values of the total New York Stock Exchange trading) gives very similar results, and will not be presented in detail in the text. It was found that, for the 30 stocks under study, the number of months out of the possible 38 in which the funds' purchases as a percentage of the total New York Stock Exchange volume changed in a direction different from the change in their actual net purchases ranged from 0 to 6, with a median value of only 2. The direction of change of actual net purchases is therefore taken as an approximation also to the direction of change of market slare. The divergences which do appear, moreover, may be produced in part by the approximations employed in the foregoing to measure market shares. Firstly, the market share is based on relative dollar values of purchases and sales, rather than on the numbers of shares traded. It was not possible to obtain a continuous series for the latter on the basis of the data available for this study. No information was available regarding the funds' purchases oi old and/or new shares in those months in which trading took place on a "when issued" basis. Secondly, the total value of trading on the New York Stock Exchange was computed by multiplying average trading prices (average values of opening, closing, high and low price quotations) by the total reported volume traded. The investment funds' computed in the foregoing, moreover (percentage of New York Stock Exchange volume) is not to be taken as an actual measure of the unds' relative participation in that particular market, as no information is available at this point regarding the distribution of the funds' transactions over various market channels. ⁷ See tables IV

TABLE IV-93.—Summary of comparisons between changes in monthly average market prices and changes in investment fund monthly net purchases of sample 30 stocks, September 1955 to September 1958

Stock	Number of months out of possible 37 in which d rection of change of fun net purchases			
	Differed from change in same month's price	with change		
Aluminium Ltd	15 17 20 13 19 21 21 21 25 21 23 17 21 23	14 19 16 20 15 16 18 23 23 20 21 18 16 19 15 17 16		
International Business Machines. International Paper. Kennecott Copper. National Lead. Phillips Petroleum. Shell Oil. Socony Mobil. Standard Oil of California.	22 24 12 19 14 16 19 18	22 19 21 19 16 18 18		
Standard Oil of Indiana. Standard Oil of New Jersey. Texas Co. Union Carbide. United States Steel. Westinghouse Electric.	24 19 20	13 15 17 23 18 21		

Either or both of these tentative explanations of the funds' portfolio action may have some relevance for specific issues and their effect in the present analysis may be obscured by other motivating factors. As was pointed out earlier, the funds' portfolio action in securities of differing types will depend on their managers' varying predilections for risk bearing and for income realization, and on the length of the time horizon of their market and economic forecasts. Some light was thrown on these latter questions by the comparative portfolio analysis in the opening sections of this chapter.

The analysis of this section, based on the sample 30 stocks, therefore, suggests the following tentative conclusions: Firstly, the appearance of a contramarket tendency which emerges when the funds' total stock transactions are considered is considerably weakened when attention is focused on this representative group of stocks which occupy a significant share of the funds' portfolios and in which the funds' trading is a significant share of both their total stock trading and the total market activity in the stocks; secondly, the funds' share of the total market activity in common stocks has been increasing noticeably in recent years, and their market share in the sample of high-grade stocks has increased quite sharply during the latter stages of the study period.