THREE SIMPLE METHODS OF COMMON-STOCK SELECTION

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At the outset I must apologize to all of you, and especially to the other speakers, for the lack of congruence, even for a basic contradiction between my material and the general theme of this seminar: "The Economic Framework of Investors." What I shall have to say will have little or nothing to do with economics in the usual sense of the term.

This paper will discuss the results of a rather extensive investigation of the behavior of common stock prices in the past fifteen years. The study was inspired by my observation that during this period the most impressive characteristic of the stock market was the wide amplitude and the repetitiveness of price fluctuations in the typical NYSE issue.

In the 1973 edition of *The Intelligent Investor,* I illustrated this point by data on McGraw-Hill stock, pointing out that in every two-year period between 1958 and 1971 the shares had either risen or declined by at least a third. (Several of the fluctuations were more than 100 percent, and they have continued throughout the past three years—mostly downward, of course.)

The question presented itself whether some simple method or methods could have been devised for taking profitable advantage of these up-and-down movements of the majority of listed issues. Such an approach should have had three main characteristics: (1) a logical theoretical basis; (2) simplicity of application; and (3) a satisfactory financial result when applied over a long-term period, including the generally unrewarding years 1960-1974.

I was encouraged to pursue this research by my own experience as an investment fund manager in the 35 years, 1923-1957. One of the mainstays of our operations was the rather undiscriminating purchase of common stocks at a price below their net-current-asset value, and later sale, typically at prices to yield a profit of 20 percent or more per

annum. Our portfolio often included more than 100 of such bargain issues at a given time; fully 90 percent of these returned satisfactory profits over the three and one-half decades.

In the long bull market that began in 1949 such opportunities became increasingly scarce, and finally all but disappeared. (This was one of the reasons for our terminating the Graham-Newman Fund.) As you all know, the market decline of 1973-74 again produced an abundance of such "bargain-basement" or "fire-sale" issues. I have no doubt that their purchase now, on a diversified basis and without the addition of detailed analyses or forecasts, will prove eminently profitable in the next few years, as it always has in the past. While this approach does certainly meet our three requirements of logic, simplicity and good performance, I must hesitate to recommend it at this moment as a "standard" or unique method for purchasing common stocks in, say, the next fifteen years; because the market record of 1960-1972 offered too limited a selection of such issues to encourage the hope that they will be sufficiently plentiful in the future to permit continuous operations by large numbers of security analysts.

Nonetheless, could we not identify other simple criteria for attractive buying levels that could have been exploited with good results in the past decade or more and which presumably should prove equally rewarding if the stock market is destined to fluctuate in the future pretty much as we have seen it fluctuate in the past?

I could easily name five such criteria which might be applied singly or in combination. These would be: (1) an attractive P/E ratio; (2) an attractive dividend yield; (3) a price below book value or, say, at two-thirds thereof; (4) a price well below its previous high; and (5) an attractive price in relation to the past earnings growth.

As I envisage it, the method of application of the criterion adopted would be as follows: (a) a portfolio of, say 30 issues, would be chosen more or less at random from among all those meeting the specific criterion used; (b) a target profit within a target holding period would be set for each individual portfolio issue; and (c) all the issues in the portfolio which are not disposed of at the designated target profit would be sold out at their market price at the end of the maximum target holding period.

The choice of the specific methods used to test this approach must necessarily be more or less arbitrary. For reasons which you should readily understand—if not agree with—those methods I used in my tests were the following: The target profit in all cases was fifty percent above cost, to be attained within two years. The Earnings-Price ratio required

for purchase under criterion (1) was twice the last twelve month's yield on Moody's Aaa bonds, but never less than ten percent. In 1959, for example, Aaa bonds yielded only 4.12 percent; hence my buying price level for stocks in 1963 was the full 10 times their previous or current twelve month's earnings per share (i.e., an E/P ratio of no less than ten percent). By contrast the Aaa average yield for 1973 was 7.5 percent. Hence the E/P ratio for purchases made in January 1974 would have been no less than 15 percent, or a P/E ratio of no greater than 6.7. My target holding period ends at the close of the second calendar year after purchase. (2) For the second criterion, all stocks selling below book value would have been available for purchase. (I have made some alternative tests based on a price requirement of less than two-thirds of the preceding year's book value. Such issues were ava' in sufficient number in 1973 and 1974.) Finally, (3) for my pre arket price criterion I took a current price of one-half the high o ous two calendar years.

My tests did not include the dividend return or earnings growth, primarily because the d available was not in a form permitting the ready application ments. (But I think also that any criterion based solely on eld should produce results paralleling fairly well those from tests.)

My research project pro g two basic lines. First, I confined myself to the P/E crite isted from a rapid perusal of *Moody's Handbook* all the insta issues were available at my required multiplier of current gs, and applied thereto my technique of purchase and sale. (f differences between using current and previous year's earni t important.) This gave me a total of about 900 assumed trans which about half were sold at a profit of 50 percent within th ear; about 17 percent sold in the second year, and the rest dis orce at the end of the second year. Only 63 of these showed than 10 percent, as against 686 yielding significant profits.

My second approach extena to the two criteria of market price below previous year's book va. arket price at half the high of the previous two years. This was don osing for each year between 1960 and 1972 otherwise random po of 30 stocks meeting each of my three criteria. This gave me 13 pc based on earnings, 13 based on previous highs, and nine based o value, for which my figures begin in 1964.

Table 1, presented below, shows ults of 35 of these imputed portfolios, covering 1050 issues, beg n 1960 and ending with the

1972 operations regretfully closed out at the end of a depressed market in 1974. I add some interim results for assumed purchases in 1973 and 1974, and these must be regarded as still pending until terminated in December 1975 and 1976. Equal dollar commitments have been assumed for each issue bought; the overall percentage result was calculated for each 30-stock portfolio, and this in turn reduced to an annual basis by dividing the total percentages by the average holding period in years; the latter tended to run between one and one-half and two years for nearly all the portfolios. (Some additional portfolio tests have been averaged in with the basic 35 covering the 13 years described. Table 1 compares the indicated annual results with those shown by the Dow Jones Industrial Average and by the Value-Line Composite Index; these were assumed to be bought each January 1, and sold out two years later. Dividends received and brokerage commissions paid have been disregarded; they should add about three percentage points to the annual profit rates as shown.

Let me comment briefly on the results shown in Table 1, first in terms of the figures, second in terms of the fundamental differences between our present approach and that generally followed by financial analysts in their portfolio selections, and third in terms of their possible implications for both the professional investor and the lay investor.

The annual percentage results shown in the table appear to me at least modestly satisfactory in themselves—though not loss-proof in severe bear markets—and quite impressive when compared with the DJIA figures and especially those of the comprehensive Value-Line Composite Index. By any of our simple methods the investor could have averaged five percent to fifteen percent greater than in a typical NYSE random portfolio. The use of the P/E-ratio-approach in our group purchases would have worked out quite a bit better than either of the other criteria. It would have given an average return of some eighteen percent, including dividends, for the thirteen years 1960-1973. But the 1973 portfolio shows a loss of some twenty-five percent to the end of 1974, about the same as the Dow. This decline could have been reduced to about fifteen percent, less dividends, if each individual issue had been required to meet all our three criteria to qualify for purchase. Similarly, a portfolio acquired in 1974 would have shown a shrinkage of only seven percent or less to the end of the year, if all three criteria had been imposed. It is reassuring that not only the 1974 losses but the 1973 shrinkage as well would have disappeared in the market rise to March 7 last.

TABLE 1

ANNUAL RESULTS OF COMMON STOCK SELECTIONS IN 1960-1974 BASED ON ONE TO THREE CRITERIA, COMPARED WITH THE DJIA AND THE VALUE-LINE COMPOSITE

(DIVIDENDS AND COMMISSIONS OMITTED)

Year of Purchase	P/E Ratio Criterion	P/E Criterion: Annual Results	Previous High Criterion: Annual Results	Book Value Criterion: Annual Results	DJIA Annual Results	Composite Index Value-Line Annual Results
1960	10.0x	+11.1%	+ 8.7%	—	+ 4.0%	—
1961	10.0x	+10.4	+ 3.0	—	+ 3.0	—
1962	10.0x	+17.6	+11.0	—	+ 2.0	- 1.0%
1963	10.0x	+21.0	+12.5	—	+16.5	-12.3
1964	10.0x	+16.0	+13.5	+ 2.1%	+13.5	+17.0
1965	10.0x	+20.0	+16.0	+11.9	- 5.0	+ 2.1
1966	9.7x	+23.0	+36.0	+19.0	- 3.5	+ 5.9
1967	9.0x	+31.2	+26.0	+26.0	+10.0	+27.6
1968	8.0x	+ 0.9	+ 1.5	+ 4.1	- 5.5	- 6.5
1969	7.1x	+ 3.4	+ 1.1	+ 0.7	- 5.5	-22.0
1970	7.0x	+35.0	+ 6.3	+16.0	+ 5.5	- 7.8
1971	6.2x	even	- 1.5	- 7.9	+10.0	+ 5.5
1972	6.8x	+ 4.3	-12.0	-22.0	-19.5	-22.0
1960-72 Annual Average		+14.9%	+ 9.7%	+ 7.7%	- 8.5%(6)	-53.0%(6)
1973 (1½ yrs.)	6.7x	-25.0%(1)	-25.0%(2)	-25.5%(3)	-19.0%(2)	-29.0%(2)
1974 (1 yr.)	6.5x	-23.0%(5)	-11.8%	-28.8%(4)	-27.6%	-34.2%

(1) If all 3 criteria were applied in 1973, result to December 1974 would be -14.7%.
(2) Result from June 1973 to December 1974, annual basis.
(3) If bought at 2/3 book value, result would be -19.0% per annum.
(4) Assuming purchases at 2/3 of 1973 book value.
(5) If all 3 criteria were applied in January 1974, result to December 1974 would be -6.5%.
(6) Overall decline from January 1960 and January 1962 to December 1974.

Mr. Irving Kahn, C.F.A., has kindly supplied me with price and earnings material for the years 1951-1960, enabling me to apply two of my criteria to that earlier decade (book-value data were not included). The partial tests I made for the period gave encouraging results from the two approaches—surprisingly good ones in fact from purchases at half the previous two-year highs. Two such tests covering about 300 purchases in various years indicated profits of twenty percent and twenty-seven percent per annum, exclusive of dividends. For individual years the results sometimes failed to equal the large rises of the Dow in that heady bull market; and there were also indications that better results would have followed from confining purchases to stocks paying dividends. Overall, however, the combination of wide individual fluctuations with the general upswing in the decade did provide an excellent milieu for simple operations of our type, with results that should have satisfied all but the impatient and over-greedy. Overall, therefore, my tests cover a period of just twenty-five years in the past.

Nevertheless, to most, our techniques themselves must seem too simple to be convincing. They involve no forecasts of the economy or of the stock market, and no selectivity among industries and individual companies. The sole reliance is placed on a single criterion of price attractiveness, applied indiscriminately on a group basis. Let us take a moment to compare "portfolio construction" by our approach with that of the well-known Markowitz-Sharpe technique, known in financial literature under the title of "efficient portfolios." Following our prescription, nothing could have been simpler, in almost any year, than to pick out from Moody's or Standard & Poor's or the Value-Line services an otherwise random portfolio of common stocks selling at less than half their high prices of the two preceding years. (But in some years the high level of the market made such low price relationships hard to find in sufficient quantity.) The other two criteria are also relatively easy to apply by mere inspection of the figures—no computer work is necessary.

On the other hand, the Markowitz—Sharpe approach requires that the security analyst estimate for a given universe of common stocks both the profit potentially and the risk of price decline—otherwise disguised as our friend the "beta"—for each component issue. According to their theories, it would then be possible for a computer to select the portfolio of any convenient size that offers the best percentage of profit for a pre-accepted risk factor, or conversely the one that offers the lowest percentage of expectable downward price

movement for a pre-selected level of anticipated profit. The method is indeed highly mathematical and complicated enough to require twenty pages of description and discussion in Lorie and Hamilton's recent book, *The Stock Market.* But proponents and discussants alike do not seem to have realized to what extent the application of these methods depends on fallible human estimates and judgments of both expectable profits and anticipable price declines of many individual issues.

Self-respecting security analysts should be dissatisfied with my own three approaches in the bare-bones form in which they have been presented. Most would be sure that they could have gotten better results than my calculations show by adding either a little or a lot to the procedure I followed. The first question one is likely to ask is: "Why limit ourselves to just one criterion for stock selection? Why not require that the portfolio issues meet all three or at least two of our conditions for purchase? Again one may ask why I have not tested out other logical criteria, such as a minimum dividend return—presumably in relation to going bond-interest rates—or a minimum rate of past earnings growth—as set forth, say, in the Value-Line analyses—or, thirdly, some relatively simple tests of financial strength, etc.

I have indeed made some supplementary tests of the first kind, which combined two or more of my criteria, but the results before 1972 were not persuasive. In 1962 for example, my 10X earnings criterion would have produced an annual profit rate of twenty-one percent while our 30-stock portfolio bought at half the 1960-1961 high prices yielded a corresponding gain of 12½ percent. A third group that met both of these tests would have shown a profit of thirty-two percent, excluding dividends, over an average holding period of 1.7 years, thus averaging an in-between annual rate of 18.3 percent.

However, as Table 1 shows, the temporary bad results of 1973 and 1974 could have been appreciably improved by insisting that each portfolio stock meet all three of my criteria, and by setting the book-value test at two-thirds thereof, instead of 100 percent, as heretofore.

What I have been presenting so far is by no means a single cut-and-dried method for buying and selling common stocks—though it could easily be reduced to so narrow a scope. But the very fact that my research has been carried out on a three-pronged basis should suggest that there is an ample field there for additional studies by the body of financial anlaysts, and thus for a variety of individual judgments as to

the most appealing criteria and other parameters—to use a now fashionable word—for this type of investment technique.

Early in 1975 it would have been possible to find a large number of common stocks, each meeting an assortment of quantitative criteria. Let me enumerate the following seven (1) A price under 5.3X last twelve months' earnings. (This would represent our standard requirement of an earnings yield twice the current Aaa bond rate of 9½ percent. (2) A dividend return of at least six percent. (This is an arbitrary figure, and may appear too low to some of you compared with bond yields.) Experience shows that the dividend return usually plays a small part in the overall results of a less-than-three-years' holding of common stocks—which our method prescribes—except to the important degree that rate changes may influence the price movement. (3) A price less than half the 1972-1974 high. This is readily obtainable and corresponds to one of our single criteria. (4) A price less than two-thirds of book value. The figure is set at this large discount first because it is now readily obtainable, and second it suggests the appealing technique of buying at two-thirds of book and selling within, say, two years at 100 percent of book—for a 50 percent-plus profit. (5) A satisfactory past growth rate—as measured simply by 1974 earnings at least twice those of 1964. About half the NYSE issues would meet this criterion. (6) A sound financial condition from the standpoint of debt. I apply this by requiring that each company pass at least two of the following three tests:

(6a) Current Assets = 1.9X Current Liabilities.

(6b) Current Assets = Current liabilities plus debt.

(6c) Stock equity (including preferred stock) = Current liabilities plus debt.

About half the NYSE list met two of these requirements, based on their 1973 balance sheets.

(7) Earnings stability, as shown by both of the following:

(7a) No deficit in the 1965-1974 decade.

(7b) Not more than two years of decline in per share earnings—five percent or more—in the ten years of 1965-1974.

I applied these seven criteria at the close of 1974 to four random samples aggregating 100 NYSE issues. The number meeting each requirement ranged from a minimum of fifty percent to a maximum of eighty percent. What is most interesting perhaps is that thirty-two issues met all seven criteria—indicating that some 500 listed issues in all would have been available for such further selective processes as you analysts would insist upon. Hence, these could have offered as many as seventeen 30-stock portfolios—all different. In the aggregate, portfolios of this kind should prove statistically almost fool-proof, and they all promise a satisfactory rate of return over the next two years—unless the economic sky actually falls down upon us, as a few Cassandras are predicting, not without their disquieting arguments. On this crucial point it seems to me that we might as well base our investment policy on the assumption that now—as always in the past—the bear market and the recession-depression will prove temporary, and offer more opportunities than risks to those who do not borrow money to buy stocks. I see no clear alternatives to such a combination of courage, optimism, and patience.

Returning for a moment to the idea of buying stocks below their working-capital value—with which I began this paper—I have a compilation that lists as many as 600 such opportunities taken from the S&P Monthly Stock Guide at 1974 year-end—about one company out of six in the booklet. More than half of these were selling at two-thirds or less of net-current—asset value, and also more than half at less than five times last twelve months' earnings. Of the two latter bargain categories about 100 were listed on the NYSE, and 31 of these were available at both less than two-thirds working-capital-value and less than five times earnings.

At the market level of December 1974, security analysis had become almost a superfluity. The selectivity-element might pretty well have been limited to the factor of financial strength or credit risk; beyond that it was by no means clear to me that even my seven criteria could be expected to yield results significantly better than any purely-random 30 stock portfolio—chosen by the so-called dart-throwing method assumed often by academics of the "efficient market" or anti-security analysis school.

A basic question raised in this paper is not whether elaborate security analysis is required for common-stock selection under 1974-1975 conditions—to which my answer would be no—but rather the extent to which the simple approaches expounded today could be

expected to prove rewarding to the stock markets of the future—say of the next 10 or 15 years—which will make up a significant part of the working careers of those in my audience. Those of you who have been following this presentation closely will have adduced that my attitude partakes of both the negative and the positive on the need for elaborate security analysis. I do not have much confidence in the practical worth for most analysts of detailed studies of individual companies, with emphasis placed either on their comparative past performance or on predictions of their relative future performance over a one-to-five-years time span.

My reputation—such as it is, or perhaps as recently revived—seems to be associated chiefly with the concept of "Value." But I have been truly interested solely in such aspects of value as present themselves in a clear and convincing manner, derived from basic elements of earning power and balance-sheet-position, with no emphasis at all placed on such matters as small variations in the growth rate from quarter to quarter, or the inclusion or exclusion of minor items in calculating the so-called "primary earnings." Most significant here, I have resolutely turned my back on efforts to predict the future.

To that extent I share the scepticism expressed by the "efficient market" theoreticians as to the ability of all but very superior security anlaysts to do a good job of individual stock selection. But this is far from saying that I think that individual stock prices reflect in general and under most conditions the "fair value" of each issue. On the contrary, my present emphasis on the tendency of most stocks to fluctuate widely and often wildly in price over the years should show my conviction that stock prices are often out of line with their fair or intrinsic values.

I see no reason to expect the disappearance or any great diminution of the age-old tendency of most common stocks to move up and down over a wide percentage range: I deem this a consequence of the psychological or rather the pathological nature of stock speculation. Nor have there been any signs that the institutional dominance of the stock market in the past decade has tended to lessen the amplitude of these fluctuations. We cannot predict the overall performance of common stocks in the next fifteen years—the exhilarating achievement of better than fifteen percent per annum for 1944-1959 was followed by practically a zero performance in 1960-1974. But in both the rewarding and the disillusioning periods the bulk of individual issues persisted in their wide upswings and downswings. It is happening once

again in the current market. (The zebra will grow older but will not change his stripes.)

Coming back in conclusion to stocks selection in future years let me make two undeniable assertions: The first is that the behavior of stock prices in the past fifteen years and more does indicate that relatively simply criteria of purchase and sale could have been applied on a group basis with satisfactory results throughout this period, except naturally in 1973 and 1974; secondly, if the general character of future common-stock movements will resemble basically that of the past, in their tendency to move up and down, then there is good reason for financial analysts to develop and apply systematically—each in his individual fashion—the type of investment policy I have discussed today.