

# The New Speculation in Common Stocks

BENJAMIN GRAHAM

*Visiting Professor of Finance, U. C. L. A.*

ASKED HARTLEY SMITH, in introducing me to you, to lay chief stress upon my advanced age. What I shall have to say will reflect the spending of many years in Wall Street, with their attendant varieties of experience. This has included the recurrent advent of new conditions, or a new atmosphere, which challenge the value of experience itself. It is true that one of the elements that distinguish economics, finance, and security analysis from other practical disciplines is the uncertain validity of past phenomena as a guide to the present and future. Yet we have no right to reject the lessons of the past until we have at least studied and understood them. My address today is an effort toward such understanding in a limited field—in particular, an endeavor to point out some contrasting relationships between the present and the past in our underlying attitudes towards investment and speculation in common stocks.

Let me start with a summary of my thesis. In the past the speculative elements of a common stock resided almost exclusively in the company itself; they were due to uncertainties, or fluctuating elements, or downright weaknesses in the industry, or the corporation's individual set-up. These elements of speculation still exist, of course; but it may be said that they have been sensibly diminished by a number of long-term developments to which I shall refer. But in revenge a new and major element of speculation has been introduced into the common-stock arena from *outside* the companies. It comes from the attitude and viewpoint of the stock-buying public and their advisers—chiefly us security analysts. This attitude may be described in a phrase: primary emphasis upon future expectations.

Nothing will appear more logical and natural to this audience than the idea that a common stock should be valued and priced primarily on the basis of the company's expected future performance. Yet this simple-appearing concept carries with it a number of paradoxes and pitfalls. For one thing, it obliterates a good part of the older, well-established distinctions between investment and speculation. The dictionary says that "speculate" comes from the Latin "specula", a look-out or watch-tower. Thus it was the speculator who looked out from his elevated watch-tower and saw future developments coming before other people did. But today, if the investor is shrewd or well-advised, he too must have his watch-tower looking out on the future, or

rather he mounts into a common watch-tower where he rubs elbows with the speculator.

Secondly, we find that, for the most part, companies with the best investment characteristics—i.e., the best credit rating—are the ones which are likely to attract the largest speculative interest in their common stocks, since everyone assumes they are guaranteed a brilliant future. Thirdly, the concept of future prospects, and particularly of continued growth in the future, invites the application of formulae out of higher mathematics to establish the present value of the favored issues. But the combination of precise formulae with highly imprecise assumptions can be used to establish, or rather to justify, practically any value one wishes, however high, for a really outstanding issue. But, paradoxically, that very fact on close examination will be seen to imply that no one value, or reasonably narrow range of values, can be counted on to establish and maintain itself for a given growth company; hence at times the market may conceivably value the growth component at a strikingly *low* figure.

Returning to my distinction between the older and newer speculative elements in common stock, we might characterize them by two outlandish but convenient words, viz: endogenous and exogenous. Let me illustrate briefly the old-time speculative common stock, as distinguished from an investment stock, by some data relating to American Can and Pennsylvania Railroad in 1911-13. (These appear in "Security Analysis", 1940 Edition, pp. 2-3.)

In those three years the price range of "Pennsy" moved only between 53 and 65, or between 12.2 and 15 times its average earnings for the period. It showed steady profits, was paying a reliable \$3 dividend, and investors were sure that it was backed by well over its par of \$50 in tangible assets. By contrast, the price of American Can ranged between 9 and 47; its earnings between 7c and \$8.86; the ratio of price to the average earnings moved between 1.9 times and 10 times; it paid no dividend at all; and sophisticated investors were well aware that the \$100 par value of the common represented nothing but undisclosed "water", since the preferred issue exceeded the tangible assets available for it. Thus American Can common was a representative speculative issue, because American Can Company was then a speculative-capitalized enterprise in a fluctuating and uncertain industry. Actually, American Can had a far more

brilliant long-term future than Pennsylvania Railroad; but not only was this fact not suspected by investors or speculators in those days, but even if it had been it would probably have been put aside by the investors as basically irrelevant to investment policies and programs in the years 1911-1913.

Now, to expose you to the development through time of the importance of long-term prospects for investments, I should like to use as my example our most spectacular giant industrial enterprise—none other than International Business Machines, which last year entered the small group of companies with \$1 billion of sales. May I introduce one or two autobiographical notes here, in order to inject a little of the personal touch into what otherwise would be an excursion into cold figures? In 1912 I had left college for a term to take charge of a research project for U. S. Express Co. We set out to find the effect on revenues of a proposed revolutionary new system of computing express rates. For this purpose we used the so-called Hollerith machines, leased out by the then Computing-Tabulating-Recording Co. They comprised card-punches, card-sorters, and tabulators—tools almost unknown to businessmen, then, and having their chief application in the Census Bureau. I entered Wall Street in 1914, and the next year the bonds and common stock of C.-T.-R. Co. were listed on the New York Stock Exchange. Well, I had a kind of sentimental interest in that enterprise, and besides I considered myself a sort of technological expert on their products, being one of the few financial people who had seen and used them. So early in 1916 I went to the head of my firm, known as Mr. A. N., and pointed out to him that C.-T.-R. stock was selling in the middle 40s (for 105,000 shares); that it had earned \$6.50 in 1915; that its book value—including, to be sure, some non-segregated intangibles—was \$130; that it had started a \$3 dividend; and that I thought rather highly of the company's products and prospects. Mr. A. N. looked at me pityingly. "Ben," said he, "Do not mention that company to me again. I would not touch it with a ten-foot pole. (His favorite expression.) Its 6% bonds are selling in the low 80s and they are no good. So how can the stock be any good. Everybody knows there is nothing behind it but water." (Glossary: In those days that was the ultimate of condemnation. It meant that the asset-account on the balance sheet was fictitious. Many industrial companies—notably U. S. Steel—despite their \$100 par, represented nothing but water, concealed in a written-up plant account. Since they had "nothing" to back them but earning power and future prospects, no self-respecting investor would give them a second thought.)

I returned to my statistician's cubby-hole, a chastened young man. Mr. A. N. was not only experienced and successful, but extremely shrewd as well. So much was I impressed by his sweeping condemnation of Computing-Tabulating-Recording that I never bought a share of it in my life, not even after its name was changed to IBM in 1926.

Now let us take a look at the same company with its new name in 1926, a year of pretty high stock markets. At that time it first revealed the good-will item in its balance-sheet, in the rather large sum of \$13.6 millions. A. N. had been right. Practically every dollar of the so-called equity

behind the common in 1915 had been nothing but water. However, since that time the company had made an impressive record under the direction of T. L. Watson, Sr. Its net had risen from \$691,000 to \$3.7 million—over five-fold—a greater percentage gain than it was to make in any subsequent 11-year period. It had built up a nice tangible equity for the common, and had split it 3.6 for one. It had established a \$3 dividend rate for the new stock, while earnings were \$6.39 thereon. You might have expected the 1926 stock market to have been pretty enthusiastic about a company with such a growth history and so strong a trade position. Let us see. The price range for that year was 31 low, 59 high. At the average of 45 it was selling at the same 7-times multiplier of earnings and the same 6.7% dividend yield as it had done in 1915. At its low of 31 it was not far in excess of its tangible book value, and in that respect was far more conservatively priced than 11 years earlier.

These data illustrate, as well as any can, the persistence of the old-time investment viewpoint until the culminating years of the bull market of the 1920s. What has happened since then can be summarized by using 10-year intervals in the history of IBM. In 1936 net expanded to twice the 1926 figures, and the average multiplier rose from 7 to 17½. From 1936 to 1946 the gain was 2½ times, but the average multiplier in 1946 remained at 17½. Then the pace accelerated. The 1956 net was nearly 4 times that of 1946, and the average multiplier rose to 32½. Last year, with a further gain in net, the multiplier rose again to an average of 42, if we do not count the unconsolidated equity in the foreign subsidiary.

When we examine these recent price figures with care we see some interesting analogies and contrasts with those of 40 years earlier. The one-time scandalous water, so prevalent in the balance-sheets of industrial companies, has all been squeezed out—first by disclosure and then by write-offs. But a different kind of water has been put back into the valuation by the stock market—by investors and speculators themselves. When IBM now sells at 7-times its book value, instead of 7-times earnings, the effect is practically the same as if it had no book value at all. Or the small book-value portion can be considered as a sort of minor preferred-stock component of the price, the rest representing exactly the same sort of commitment as the old-time speculator made when he bought Woolworth or U. S. Steel common entirely for their earning power and future prospects.

It is worth remarking, in passing, that in the 30 years which saw IBM transformed from a 7-times earnings to a 40-times earnings enterprise, many of what I have called the endogenous speculative aspects of our large industrial companies have tended to disappear, or at least to diminish greatly. Their financial positions are firm, their capital structures conservative; they are managed far more expertly, and even more honestly, than before. Furthermore, the requirements of complete disclosure have removed one of the important speculative elements of years ago—that derived from ignorance and mystery.

Another personal digression here. In my early years in the Street one of the favorite mystery stocks was Consoli-

dated Gas of New York, now Consolidated Edison. It owned as a subsidiary the profitable New York Edison Co., but it reported only dividends received from this source, not its full earnings. The unreported Edison earnings supplied the mystery and the "hidden value." To my surprise I discovered that these hush-hush figures were actually on file each year with the Public Service Commission of the state. It was a simple matter to consult the records and to present the true earnings of Consolidated Gas in a magazine article. (Incidentally, the addition to profits was not spectacular.) One of my older friends said to me then: "Ben, you may think you are a great guy to supply those missing figures, but Wall Street is going to thank you for nothing. Consolidated Gas with the mystery is both more interesting and more valuable than ex-mystery. You youngsters who want to stick your noses into everything are going to ruin Wall Street."

It is true that the three M's which then supplied so much fuel to the speculative fires have now all but disappeared. These were Mystery, Manipulation, and (thin) Margins. But we security analysts have ourselves been creating valuation approaches which are so speculative in themselves as to pretty well take the place of those older speculative factors. Do we not have our own "3 M's" now—none other than Minnesota Mining and Manufacturing Co.—and does not this common stock illustrate perfectly the new speculation as contrasted with the old? Consider a few figures. When M.M. & M. common sold at 101 last year the market was valuing it at 44 times 1956 earnings, which happened to show no increase to speak of in 1957. The enterprise itself was valued at \$1.7 billion, of which \$200 million was covered by net assets, and a cool \$1½ billion represented the market's appraisal of "good-will". We do not know the process of calculation by which that valuation of good-will was arrived at; we do know that a few months later the market revised this appraisal downward by some \$450 million, or about 30%. Obviously it is impossible to calculate accurately the intangible component of a splendid company such as this. It follows as a kind of mathematical law that the more important the good-will or future earning-power factor the more uncertain becomes the true value of the enterprise, and therefore the more speculative inherently the common stock.

It may be well to recognize a vital difference that has developed in the valuation of these intangible factors, when we compare earlier times with today. A generation or more ago it was the standard rule, recognized both in average stock prices and in formal or legal valuations, that intangibles were to be appraised on a more conservative basis than tangibles. A good industrial company might be required to earn between 6% and 8% on its tangible assets, represented typically by bonds and preferred stock; but its excess earnings, or the intangible assets they gave rise to, would be valued on, say, a 15% basis. (You will find approximately these ratios in the initial offering of Woolworth Preferred and Common stock in 1911, and in numerous others.) But what has happened since the 1920s? Essentially the exact reverse of these relationships may now be seen. A company must now typically earn about 10% on its common equity to have it sell in the average market at full book value. But

its excess earnings, above 10% on capital, are usually valued more liberally, or at a higher multiplier, than the base earnings required to support the book value in the market. Thus a company earning 15% on the equity may well sell at 13½ times earnings, or twice its net assets. This would mean that the first 10% earned on capital is valued at only 10 times, but the next 5%—what used to be called the excess—is actually valued at 20 times.

Now there is a logical reason for this reversal in valuation procedure, which is related to the newer emphasis on growth expectations. Companies that earn a high return on capital are given these liberal appraisals not only because of the good profitability itself, and the relative stability associated with it, but perhaps even more cogently because high earnings on capital generally go hand and hand with a good growth record and prospects. Thus what is really paying for nowadays in the case of highly profitable companies is not the good-will in the old and restricted sense of an established name and a profitable business, but rather for their assumed superior expectations of increased profits in the future.

This brings me to one or two additional mathematical aspects of the newer attitude toward common-stock valuations, which I shall touch on merely in the form of brief suggestions. If, as many tests show, the earnings multiplier tends to increase with profitability—i.e., as the rate of return on book value increases—then the arithmetical consequence of this feature is that value tends to increase directly as the square of the earnings, but *inversely* with book value. Thus in an important and very real sense tangible assets have become a drag on average market value rather than a source thereof. Take a far from extreme illustration. If Company A earns \$4 a share on a \$20 book value, and Company B also \$4 a share on \$100 of book value, Company A is almost certain to sell at a higher multiplier, and hence at higher price than Company B—say \$60 for Company A shares and \$35 for Company B shares. Thus it would not be inexact to declare that the \$80 per share of greater assets for Company B are responsible for the \$25 per share lower market price, since the earnings per share are assumed to be equal.

But more important than the foregoing is the general relationship between mathematics and the newer approach to stock values. Given the three ingredients of (a) optimistic assumptions as to the rate of earnings growth, (b) a sufficiently long projection of this growth into the future, and (c) the miraculous workings of compound interest—and the security analyst is supplied with a new kind of Philosopher's Stone which can produce or justify any desired valuation for a really "good stock." I have commented in a recent article in the Analysts Journal on the vogue of higher mathematics in bull markets, and quoted David Durand's exposition of the striking analogy between value calculations of growth stocks and the famous Petersburg Paradox, which has challenged and confused mathematicians for more than 200 years. The point I want to make here is that there is a special paradox in the relationship between mathematics and investment attitudes on common stocks, which is this: Mathematics is ordinarily considered as producing precise and dependable results; but in the stock market the

more elaborate and abstruse the mathematics the more uncertain and speculative are the conclusions we draw therefrom. In 44 years of Wall Street experience and study I have never seen dependable calculations made about common-stock values, or related investment policies, that went beyond simple arithmetic or the most elementary algebra. Whenever excalculus is brought in, or higher algebra, you could take it as a warning signal that the operator was trying to substitute theory for experience, and usually also to give to speculation the deceptive guise of investment.

The older ideas of common-stock investment may seem quite naive to the sophisticated security analyst of today. The great emphasis was always on what we now call the defensive aspects of the company or issue—mainly the assurance that it would continue its dividend unreduced in bad times. Thus the strong railroads, which constituted the standard investment commons of 50 years ago, were actually regarded in very much the same way as the public-utility commons in recent years. If the past record indicated stability, the chief requirement was met; not too much effort was made to anticipate adverse changes of an underlying character in the future. But, conversely, especially favorable future prospects were regarded by shrewd investors as something to look for but not to pay for.

In effect this meant that the investor did not have to pay anything substantial for superior long-term prospects. He got these, virtually without extra cost, as a reward for his own superior intelligence and judgment in picking the best rather than the merely good companies. For common stocks with the same financial strength, past earnings record, and dividend stability, all sold at about the same dividend yield.

This was indeed a short-sighted point of view, but it had the great advantage of making common-stock investment in the old days not only simple but also basically sound and highly profitable. Let me return for the last time to a personal note. Somewhere around 1920 our firm distributed a series of little pamphlets entitled "Lessons for Investors". Of course it took a brash analyst in his middle twenties like myself to hit on so smug and presumptuous a title. But in one of the papers I made the casual statement that "If a common stock is a good investment it is also a good speculation." For, reasoned I, if a common stock was so sound that it carried very little risk of loss it must ordinarily be so good as to possess excellent chances for future gains. Now this was a perfectly true and even valuable discovery, but it was true only because nobody paid any attention to it. Some years later, when the public woke up to the historical merits of common stocks as long-term investments, they soon ceased to have any such merit, because the public's enthusiasm created price levels which deprived them of their built-in margin of safety, and thus drove them out of the investment class. Then, of course, the pendulum swung to the other extreme, and we soon saw one of the most respected authorities declaring (in 1931) that no common stock could *ever* be an investment.

When we view this long-range experience in perspective we find another set of paradoxes in the investor's changing attitude towards capital gains as contrasted with income. It

seems a truism to say that the old-time common-stock investor was not much interested in capital gains. He bought almost entirely for safety and income, and let the speculator concern himself with price appreciation. Today we are likely to say that the more experienced and shrewd the investor, the less attention he pays to dividend returns, and the more heavily his interest centers on long-term appreciation. Yet one might argue, perversely, that precisely because the old-time investor did not concentrate on future capital appreciation he was virtually guaranteeing to himself that he would have it, at least in the field of industrial stocks. And, conversely, today's investor is so concerned with anticipating the future that he is already paying handsomely for it in advance. Thus what he has projected with so much study and care may actually happen and still not bring him any profit. If it should fail to materialize to the degree expected he may in fact be faced with a serious temporary and perhaps even permanent loss.

What *lessons*—again using the pretentious title of my 1920 pamphlets—can the analyst of 1958 learn from this linking of past with current attitudes? Not much of value, one is inclined to say. We can look back nostalgically to the good old days when we paid only for the present and could get the future for nothing—an "all this and Heaven too" combination. Shaking our heads sadly we mutter, "Those days are gone forever". Have not investors and security analysts eaten of the tree of knowledge of good and evil prospects? By so doing have they not permanently expelled themselves from that Eden where promising common stocks at reasonable prices could be plucked off the bushes? Are we not doomed always to run the risk either of paying unreasonably high prices for good quality and prospects, or of getting poor quality and prospects when we pay what seems a reasonable price?

It certainly looks that way. Yet one cannot be sure even of that pessimistic dilemma. Recently, I did a little research in the long-term history of that towering enterprise, General Electric—stimulated by the arresting chart of 59 years of earnings and dividends appearing in their recently published 1957 Report. These figures are not without their surprises for the knowledgeable analyst. For one thing they show that prior to 1947 the growth of G.E. was fairly modest and quite irregular. The 1946 earnings, per share adjusted, were only 30% higher than in 1902—52c vs. 40c—and in no year of this period were the 1902 earnings as much as doubled. Yet the price-earnings ratio rose from 9 times in 1910 and 1916 to 29 times in 1936 and again in 1946. One might say, of course, that the 1946 multiplier at least showed the well known prescience of shrewd investors. We analysts were able to foresee then the really brilliant period of growth that was looming ahead in the next decade. Maybe so. But some of you remember that the next year, 1947, which established an impressive new high for G.E.'s per share earnings, was marked also by an extraordinary fall in the price-earnings ratio. At its low of 32 (before the 3-for-1 split) G.E. actually sold again at only 9 times its current earnings, and its average price for the year was only about 10 times earnings. Our crystal ball certainly clouded over in the short space of twelve months.

This striking reversal took place only eleven years ago. It casts some little doubt in my mind as to the complete dependability of the popular belief among analysts that prominent and promising companies will now always sell at high price-earnings ratios; that this is a fundamental fact of life for investors and they may as well accept and like it. I have no desire at all to be dogmatic on this point. All I can say is that it is not settled in my mind, and each of you must seek to settle it for yourself.

But in my concluding remarks I can say something definite about the structure of the market for various types of common stocks, in terms of their investment and speculative characteristics. In the old days the investment character of a common stock was more or less the same as, or proportionate with, that of the enterprise itself, as measured quite well by its credit rating. The lower the yield on its bonds or preferred, the more likely was the common to meet all the criteria for a satisfactory investment, and the smaller the element of speculation involved in its purchase. This relationship, between the speculative ranking of the common and the investment rating of the company, could be graphically expressed pretty much as a straight line descending from left to right. But nowadays I would describe the graph as U-shaped. At the left, where the company itself is speculative and its credit low, the common stock is of course highly speculative, just as it has always been in the past. At the right extremity, however, where the company has the highest credit rating because both its past record and future prospects are most impressive, we find that the stock market tends more or less continuously to introduce a highly speculative element into the common shares through the simple means of a price so high as to carry a fair degree of risk.

At this point I cannot forbear introducing a surprisingly relevant, if quite exaggerated, quotation on the subject

which I found recently in one of Shakespeare's sonnets. It reads:

"Have I not seen dwellers on form and favor  
Lose all and more by paying too much rent?"

Returning to my imaginary graph, it would be the center area where the speculative element in common-stock purchases would tend to reach its minimum. In this area we could find many well-established and strong companies, with a record of past growth corresponding to that of the national economy and with future prospects apparently of the same character. Such common stocks could be bought at most times, except in the upper ranges of a bull market, at moderate prices in relation to their indicated intrinsic values. As a matter of fact, because of the present tendency of investors and speculators alike to concentrate on more glamorous issues, I should hazard the statements that these middle-ground stocks tend to sell on the whole rather below their independently determinable values. They thus have a margin-of-safety factor supplied by the same market preferences and prejudices which tend to destroy the margin of safety in the more promising issues. Furthermore, in this wide array of companies there is plenty of room for penetrating analysis of the past record and for discriminating choice in the area of future prospects, to which can be added the higher assurance of safety conferred by diversification.

When Phaethon insisted on driving the chariot of the Sun, his father, the experienced operator, gave the neophyte some advice which the latter failed to follow—to his cost. Ovid summed up Phoebus Apollo's counsel in three words:

"Medius tutissimus ibis"  
"You will go safest in the middle course"

I think this principle holds good for investors and their security-analyst advisers.