

the holding-company systems, public-utility financing has been sound and bankruptcies unknown. The financial troubles of electric and gas utilities in the 1930s were traceable almost 100% to financial excesses and mismanagement, which left their imprint clearly on the companies' capitalization structures. Simple but stringent tests of safety, therefore, would have warned the investor away from the issues that were later to default.

Among industrial bond issues the long-term record has been different. Although the industrial group as a whole has shown a better growth of earning power than either the railroads or the utilities, it has revealed a lesser degree of inherent stability for individual companies and lines of business. Thus in the past, at least, there have been persuasive reasons for confining the purchase of industrial bonds and preferred stocks to companies that not only are of major size but also have shown an ability in the past to withstand a serious depression.

Few defaults of industrial bonds have occurred since 1950, but this fact is attributable in part to the absence of a major depression during this long period. Since 1966 there have been adverse developments in the financial position of many industrial companies. Considerable difficulties have developed as the result of unwise expansion. On the one hand this has involved large additions to both bank loans and long-term debt; on the other it has frequently produced operating losses instead of the expected profits. At the beginning of 1971 it was calculated that in the past seven years the interest payments of all nonfinancial firms had grown from \$9.8 billion in 1963 to \$26.1 billion in 1970, and that interest payments had taken 29% of the aggregate profits before interest and taxes in 1971, against only 16% in 1963.<sup>3</sup> Obviously, the burden on many individual firms had increased much more than this. Overbonded companies have become all too familiar. There is every reason to repeat the caution expressed in our 1965 edition:

We are not quite ready to suggest that the investor may count on an indefinite continuance of this favorable situation, and hence relax his standards of bond selection in the industrial or any other group.

## Common-Stock Analysis

The ideal form of common-stock analysis leads to a valuation of the issue which can be compared with the current price to determine whether or not the security is an attractive purchase. This valuation, in turn, would ordinarily be found by estimating the average earnings over a period of years in the *future* and then multiplying that estimate by an appropriate "capitalization factor."

The now-standard procedure for estimating future earning power starts with average *past* data for physical volume, prices received, and operating margin. Future sales in dollars are then projected on the basis of assumptions as to the amount of change in volume and price level over the previous base. These estimates, in turn, are grounded first on general economic forecasts of gross national product, and then on special calculations applicable to the industry and company in question.

An illustration of this method of valuation may be taken from our 1965 edition and brought up to date by adding the sequel. The Value Line, a leading investment service, makes forecasts of future earnings and dividends by the procedure outlined above, and then derives a figure of "price potentiality" (or projected market value) by applying a valuation formula to each issue based largely on certain past relationships. In Table 11-2 we reproduce the projections for 1967-1969 made in June 1964, and compare them with the earnings, and average market price actually realized in 1968 (which approximates the 1967-1969 period).

The combined forecasts proved to be somewhat on the low side, but not seriously so. The corresponding predictions made six years before had turned out to be overoptimistic on earnings and dividends; but this had been offset by use of a low multiplier, with the result that the "price potentiality" figure proved to be about the same as the actual average price for 1963.

The reader will note that quite a number of the individual forecasts were wide of the mark. This is an instance in support of our general view that composite or group estimates are likely to be a good deal more dependable than those for individual companies. Ideally, perhaps, the security analyst should pick out the three or four companies whose future he thinks he knows the best, and concentrate his own and his clients' interest on what he forecasts for

**TABLE 11-2 The Dow Jones Industrial Average**

(The Value Line's Forecast for 1967–1969 (Made in Mid-1964) Compared With Actual Results in 1968)

	<i>Earnings</i>		Price	Price	Average
	Forecast 1967–1969	Actual 1968 <sup>a</sup>	June 30 1964	Forecast 1967–1969	Price 1968 <sup>a</sup>
Allied Chemical	\$3.70	\$1.46	54½	67	36½
Aluminum Corp. of Am.	3.85	4.75	71½	85	79
American Can	3.50	4.25	47	57	48
American Tel. & Tel.	4.00	3.75	73½	68	53
American Tobacco	3.00	4.38	51½	33	37
Anaconda	6.00	8.12	44½	70	106
Bethlehem Steel	3.25	3.55	36½	45	31
Chrysler	4.75	6.23	48½	45	60
Du Pont	8.50	7.82	253	240	163
Eastman Kodak	5.00	9.32	133	100	320
General Electric	4.50	3.95	80	90	90½
General Foods	4.70	4.16	88	71	84½
General Motors	6.25	6.02	88	78	81½
Goodyear Tire	3.25	4.12	43	43	54
Internat. Harvester	5.75	5.38	82	63	69
Internat. Nickel	5.20	3.86	79	83	76
Internat. Paper	2.25	2.04	32	36	33
Johns Manville	4.00	4.78	57½	54	71½
Owens-Ill. Glass	5.25	6.20	99	100	125½
Procter & Gamble	4.20	4.30	83	70	91
Sears Roebuck	4.70	5.46	118	78	122½
Standard Oil of Cal.	5.25	5.59	64½	60	67
Standard Oil of N.J.	6.00	5.94	87	73	76
Swift & Co.	3.85	3.41 <sup>b</sup>	54	50	57
Texaco	5.50	6.04	79½	70	81
Union Carbide	7.35	5.20	126½	165	90
United Aircraft	4.00	7.65	49½	50	106
U.S. Steel	4.50	4.69	57½	60	42
Westinghouse Elec.	3.25	3.49	30½	50	69
Woolworth	2.25	2.29	29½	32	29½
Total	138.25	149.20	2222	2186	2450
DJIA (Total % 2.67)	52.00	56.00	832	820	918 <sup>c</sup>
DJIA Actual 1968	57.89				906 <sup>c</sup>
DJIA Actual 1967–1969	56.26				

<sup>a</sup> Adjusted for stock-splits since 1964.<sup>b</sup> Average 1967–1969.<sup>c</sup> Difference due to changed divisor.

them. Unfortunately, it appears to be almost impossible to distinguish in advance between those individual forecasts which can be relied upon and those which are subject to a large chance of error. At bottom, this is the reason for the wide diversification practiced by the investment funds. For it is undoubtedly better to concentrate on one stock that you *know* is going to prove highly profitable, rather than dilute your results to a mediocre figure, merely for diversification's sake. But this is not done, because it cannot be done *dependably*.<sup>4</sup> The prevalence of wide diversification is in itself a pragmatic repudiation of the fetish of "selectivity," to which Wall Street constantly pays lip service.\*

### **Factors Affecting the Capitalization Rate**

Though average future earnings are supposed to be the chief determinant of value, the security analyst takes into account a number of other factors of a more or less definite nature. Most of these will enter into his capitalization rate, which can vary over a wide range, depending upon the "quality" of the stock issue. Thus, although two companies may have the same figure of expected

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\* In more recent years, most mutual funds have almost robotically mimicked the Standard & Poor's 500-stock index, lest any different holdings cause their returns to deviate from that of the index. In a countertrend, some fund companies have launched what they call "focused" portfolios, which own 25 to 50 stocks that the managers declare to be their "best ideas." That leaves investors wondering whether the other funds run by the same managers contain their worst ideas. Considering that most of the "best idea" funds do not markedly outperform the averages, investors are also entitled to wonder whether the managers' ideas are even worth having in the first place. For indisputably skilled investors like Warren Buffett, wide diversification would be foolish, since it would water down the concentrated force of a few great ideas. But for the typical fund manager or individual investor, *not* diversifying is foolish, since it is so difficult to select a limited number of stocks that will include most winners and exclude most losers. As you own more stocks, the damage any single loser can cause will decline, and the odds of owning all the big winners will rise. The ideal choice for most investors is a total stock market index fund, a low-cost way to hold every stock worth owning.

earnings per share in 1973–1975—say \$4—the analyst may value one as low as 40 and the other as high as 100. Let us deal briefly with some of the considerations that enter into these divergent multipliers.

1. *General Long-Term Prospects.* No one really knows anything about what will happen in the distant future, but analysts and investors have strong views on the subject just the same. These views are reflected in the substantial differentials between the price/earnings ratios of individual companies and of industry groups. At this point we added in our 1965 edition:

For example, at the end of 1963 the chemical companies in the DJIA were selling at considerably higher multipliers than the oil companies, indicating stronger confidence in the prospects of the former than of the latter. Such distinctions made by the market are often soundly based, but when dictated mainly by past performance they are as likely to be wrong as right.

We shall supply here, in Table 11-3, the 1963 year-end material on the chemical and oil company issues in the DJIA, and carry their earnings to the end of 1970. It will be seen that the chemical companies, despite their high multipliers, made practically no gain in earnings in the period after 1963. The oil companies did much better than the chemicals and about in line with the growth implied in their 1963 multipliers.<sup>5</sup> Thus our chemical-stock example proved to be one of the cases in which the market multipliers were proven wrong.\*

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\* Graham's point about chemical and oil companies in the 1960s applies to nearly every industry in nearly every time period. Wall Street's consensus view of the future for any given sector is usually either too optimistic or too pessimistic. Worse, the consensus is at its most cheery just when the stocks are most overpriced—and gloomiest just when they are cheapest. The most recent example, of course, is technology and telecommunications stocks, which hit record highs when their future seemed brightest in 1999 and early 2000, and then crashed all the way through 2002. History proves that Wall Street's "expert" forecasters are equally inept at predicting the

**TABLE 11-3 Performance of Chemical and Oil Stocks in the DJIA, 1970 versus 1964**

	1963			1970		
	Closing Price	Earned Per Share	P/E Ratio	Closing Price	Earned Per Share	P/E Ratio
<i>Chemical companies:</i>						
Allied Chemical	55	2.77	19.8 ×	24½	1.56	15.5 ×
Du Pont <sup>a</sup>	77	6.55	23.5	133½	6.76	19.8
Union Carbide <sup>b</sup>	60¼	2.66	22.7	40	2.60	15.4
			25.3 ave.			
<i>Oil companies:</i>						
Standard Oil of Cal.	59½	4.50	13.2 ×	54½	5.36	10.2 ×
Standard Oil of N.J.	76	4.74	16.0	73½	5.90	12.4
Texaco <sup>b</sup>	35	2.15	16.3	35	3.02	11.6
			15.3 ave.			

<sup>a</sup> 1963 figures adjusted for distribution of General Motors shares.

<sup>b</sup> 1963 figures adjusted for subsequent stock splits.

2. *Management.* On Wall Street a great deal is constantly said on this subject, but little that is really helpful. Until objective, quantitative, and reasonably reliable tests of managerial competence are devised and applied, this factor will continue to be looked at through a fog. It is fair to assume that an outstandingly successful company has unusually good management. This will have shown itself already in the past record; it will show up again in the estimates for the next five years, and once more in the previously discussed factor of long-term prospects. The tendency to count it still another time as a separate bullish consideration can easily lead to expensive overvaluations. The management factor is most useful, we think, in those cases in which a recent change has taken place that has not yet had the time to show its significance in the actual figures.

Two spectacular occurrences of this kind were associated with the Chrysler Motor Corporation. The first took place as far back as 1921, when Walter Chrysler took command of the almost moribund Maxwell Motors, and in a few years made it a large and highly profitable enterprise, while numerous other automobile companies were forced out of business. The second happened as recently as 1962, when Chrysler had fallen far from its once high estate and the stock was selling at its lowest price in many years. Then new interests, associated with Consolidation Coal, took over the reins. The earnings advanced from the 1961 figure of \$1.24 per share to the equivalent of \$17 in 1963, and the price rose from a low of 38¢ in 1962 to the equivalent of nearly 200 the very next year.<sup>6</sup>

3. *Financial Strength and Capital Structure.* Stock of a company with a lot of surplus cash and nothing ahead of the common is clearly a better purchase (at the same price) than another one with the same per share earnings but large bank loans and senior securities. Such factors are properly and carefully taken into account by security analysts. A modest amount of bonds or preferred stock,

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performance of 1) the market as a whole, 2) industry sectors, and 3) specific stocks. As Graham points out, the odds that individual investors can do any better are not good. The intelligent investor excels by making decisions that are not dependent on the accuracy of anybody's forecasts, including his or her own. (See Chapter 8.)

however, is not necessarily a disadvantage to the common, nor is the moderate use of seasonal bank credit. (Incidentally, a top-heavy structure—too little common stock in relation to bonds and preferred—may under favorable conditions make for a huge *speculative* profit in the common. This is the factor known as “leverage.”)

4. *Dividend Record.* One of the most persuasive tests of high quality is an uninterrupted record of dividend payments going back over many years. We think that a record of continuous dividend payments for the last 20 years or more is an important plus factor in the company's quality rating. Indeed the defensive investor might be justified in limiting his purchases to those meeting this test.

5. *Current Dividend Rate.* This, our last additional factor, is the most difficult one to deal with in satisfactory fashion. Fortunately, the majority of companies have come to follow what may be called a standard dividend policy. This has meant the distribution of about two-thirds of their average earnings, except that in the recent period of high profits and inflationary demands for more capital the figure has tended to be lower. (In 1969 it was 59.5% for the stocks in the Dow Jones average, and 55% for all American corporations.)\* Where the dividend bears a normal relationship to the earnings, the valuation may be made on either basis without substantially affecting the result. For example, a typical secondary company with expected average earnings of \$3 and an expected dividend of \$2 may be valued at either 12 times its earnings or 18 times its dividend, to yield a value of 36 in both cases.

However, an increasing number of growth companies are departing from the once standard policy of paying out 60% or more of earnings in dividends, on the grounds that the sharehold-

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\* This figure, now known as the “dividend payout ratio,” has dropped considerably since Graham's day as American tax law discouraged investors from seeking, and corporations from paying, dividends. As of year-end 2002, the payout ratio stood at 34.1% for the S & P 500-stock index and, as recently as April 2000, it hit an all-time low of just 25.3%. (See [www.barra.com/research/fundamentals.asp](http://www.barra.com/research/fundamentals.asp).) We discuss dividend policy more thoroughly in the commentary on Chapter 19.



ers' interests will be better served by retaining nearly all the profits to finance expansion. The issue presents problems and requires careful distinctions. We have decided to defer our discussion of the vital question of proper dividend policy to a later section—Chapter 19—where we shall deal with it as a part of the general problem of management-shareholder relations.

## Capitalization Rates for Growth Stocks

Most of the writing of security analysts on formal appraisals relates to the valuation of growth stocks. Our study of the various methods has led us to suggest a foreshortened and quite simple formula for the valuation of growth stocks, which is intended to produce figures fairly close to those resulting from the more refined mathematical calculations. Our formula is:

$$\text{Value} = \text{Current (Normal) Earnings} \times (8.5 \text{ plus twice the expected annual growth rate})$$

The growth figure should be that expected over the next seven to ten years.<sup>7</sup>

In Table 11-4 we show how our formula works out for various rates of assumed growth. It is easy to make the converse calculation and to determine what rate of growth is anticipated by the current market price, assuming our formula is valid. In our last edition we made that calculation for the DJIA and for six important stock issues. These figures are reproduced in Table 11-5. We commented at the time:

The difference between the implicit 32.4% annual growth rate for Xerox and the extremely modest 2.8% for General Motors is indeed striking. It is explainable in part by the stock market's feeling that General Motors' 1963 earnings—the largest for any corporation in history—can be maintained with difficulty and exceeded only modestly at best. The price earnings ratio of Xerox, on the other hand, is quite representative of speculative enthusiasm fastened upon a company of great achievement and perhaps still greater promise.

The implicit or expected growth rate of 5.1% for the DJIA com-

**TABLE 11-4    Annual Earnings Multipliers Based on Expected Growth Rates,  
Based on a Simplified Formula**

Expected growth rate	0.0%	2.5%	5.0%	7.2%	10.0%	14.3%	20.0%
Growth in 10 years	0.0	28.0%	63.0%	100.0%	159.0%	280.0%	319.0%
Multiplier of current earnings	8.5	13.5	18.5	22.9	28.5	37.1	48.5

**TABLE 11-5    Implicit or Expected Growth Rates, December 1963 and December 1969**

<i>Issue</i>	<i>P/E Ratio, 1963</i>	<i>Projected<sup>a</sup> Growth Rate, 1963</i>	<i>Earned Per Share 1963</i>	<i>Actual Annual Growth, 1963-1969</i>	<i>P/E Ratio, 1969</i>	<i>Projected<sup>a</sup> Growth Rate, 1969</i>
American Tel. & Tel.	23.0 ×	7.3%	3.03	4.00	12.2 ×	1.8%
General Electric	29.0	10.3	3.00	3.79 <sup>b</sup>	20.4	6.0
General Motors	14.1	2.8	5.55	5.95	11.6	1.6
IBM	38.5	15.0	3.48 <sup>c</sup>	8.21	44.4	17.9
International Harvester	13.2	2.4	2.29 <sup>c</sup>	2.30	10.8	1.1
Xerox	25.0	32.4	.38 <sup>c</sup>	2.08	50.8	21.2
DJIA	18.6	5.1	41.11	57.02	14.0	2.8

<sup>a</sup> Based on formula on p. 295.

<sup>b</sup> Average of 1968 and 1970, since 1969 earnings were reduced by strike.

<sup>c</sup> Adjusted for stock splits.

pares with an actual annual increase of 3.4% (compounded) between 1951–1953 and 1961–1963.

We should have added a caution somewhat as follows: The valuations of expected high-growth stocks are necessarily on the low side, if we were to assume these growth rates will actually be realized. In fact, according to the arithmetic, if a company could be assumed to grow at a rate of 8% or more *indefinitely* in the future its value would be infinite, and no price would be too high to pay for the shares. What the valuer actually does in these cases is to introduce a *margin of safety* into his calculations—somewhat as an engineer does in his specifications for a structure. On this basis the purchases would realize his assigned objective (in 1963, a future overall return of 7½% per annum) even if the growth rate actually realized proved substantially less than that projected in the formula. Of course, then, if that rate were actually realized the investor would be sure to enjoy a handsome additional return. There is really no way of valuing a high-growth company (with an expected rate above, say, 8% annually), in which the analyst can make realistic assumptions of *both* the proper multiplier for the current earnings and the expectable multiplier for the future earnings.

As it happened the actual growth for Xerox and IBM proved very close to the high rates implied from our formula. As just explained, this fine showing inevitably produced a large advance in the price of both issues. The growth of the DJIA itself was also about as projected by the 1963 closing market price. But the moderate rate of 5% did not involve the mathematical dilemma of Xerox and IBM. It turned out that the 23% price rise to the end of 1970, plus the 28% in aggregate dividend return received, gave not far from the 7½% annual overall gain posited in our formula. In the case of the other four companies it may suffice to say that their growth did not equal the expectations implied in the 1963 price and that their quotations failed to rise as much as the DJIA. *Warning:* This material is supplied for illustrative purposes only, and because of the inescapable necessity in security analysis to project the future growth rate for most companies studied. Let the reader not be misled into thinking that such projections have any high degree of reliability or, conversely, that future prices can be

counted on to behave accordingly as the prophecies are realized, surpassed, or disappointed.

We should point out that any “scientific,” or at least reasonably dependable, stock evaluation based on anticipated future results must take future interest rates into account. A given schedule of expected earnings, or dividends, would have a smaller present value if we assume a higher than if we assume a lower interest structure.\* Such assumptions have always been difficult to make with any degree of confidence, and the recent violent swings in long-term interest rates render forecasts of this sort almost presumptuous. Hence we have retained our old formula above, simply because no new one would appear more plausible.

## Industry Analysis

Because the general prospects of the enterprise carry major weight in the establishment of market prices, it is natural for the security analyst to devote a great deal of attention to the economic position of the industry and of the individual company in its industry. Studies of this kind can go into unlimited detail. They are sometimes productive of valuable insights into important factors that will be operative in the future and are insufficiently appreciated by the current market. Where a conclusion of that kind can be drawn with a fair degree of confidence, it affords a sound basis for investment decisions.

Our own observation, however, leads us to minimize somewhat the practical value of most of the industry studies that are made available to investors. The material developed is ordinarily of a kind with which the public is already fairly familiar and that has already exerted considerable influence on market quotations.

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\* Why is this? By “the rule of 72,” at 10% interest a given amount of money doubles in just over seven years, while at 7% it doubles in just over 10 years. When interest rates are high, the amount of money you need to set aside today to reach a given value in the future is *lower*—since those high interest rates will enable it to grow at a more rapid rate. Thus a rise in interest rates today makes a future stream of earnings or dividends less valuable—since the alternative of investing in bonds has become relatively more attractive.

Rarely does one find a brokerage-house study that points out, with a convincing array of facts, that a popular industry is heading for a fall or that an unpopular one is due to prosper. Wall Street's view of the longer future is notoriously fallible, and this necessarily applies to that important part of its investigations which is directed toward the forecasting of the course of profits in various industries.

We must recognize, however, that the rapid and pervasive growth of technology in recent years is not without major effect on the attitude and the labors of the security analyst. More so than in the past, the progress or retrogression of the typical company in the coming decade may depend on its relation to new products and new processes, which the analyst may have a chance to study and evaluate *in advance*. Thus there is doubtless a promising area for effective work by the analyst, based on field trips, interviews with research men, and on intensive technological investigation on his own. There are hazards connected with investment conclusions derived chiefly from such glimpses into the future, and not supported by presently demonstrable value. Yet there are perhaps equal hazards in sticking closely to the limits of value set by sober calculations resting on actual results. The investor cannot have it both ways. He can be imaginative and play for the big profits that are the reward for vision proved sound by the event; but then he must run a substantial risk of major or minor miscalculation. Or he can be conservative, and refuse to pay more than a minor premium for possibilities as yet unproved; but in that case he must be prepared for the later contemplation of golden opportunities foregone.

## **A Two-Part Appraisal Process**

Let us return for a moment to the idea of valuation or appraisal of a common stock, which we began to discuss above on p. 288. A great deal of reflection on the subject has led us to conclude that this better be done quite differently than is now the established practice. We suggest that analysts work out first what we call the "past-performance value," which is based solely on the past record. This would indicate what the stock would be worth—absolutely, or as a percentage of the DJIA or of the S & P composite—if it is assumed that its relative past performance will continue

unchanged in the future. (This includes the assumption that its relative growth rate, as shown in the last seven years, will also continue unchanged over the next seven years.) This process could be carried out mechanically by applying a formula that gives individual weights to past figures for profitability, stability, and growth, and also for current financial condition. The second part of the analysis should consider to what extent the value based solely on past performance should be modified because of new conditions expected in the future.

Such a procedure would divide the work between senior and junior analysts as follows: (1) The senior analyst would set up the formula to apply to all companies generally for determining past-performance value. (2) The junior analysts would work up such factors for the designated companies—pretty much in mechanical fashion. (3) The senior analyst would then determine to what extent a company's performance—absolute or relative—is likely to differ from its past record, and what change should be made in the value to reflect such anticipated changes. It would be best if the senior analyst's report showed both the original valuation and the modified one, with his reasons for the change.

Is a job of this kind worth doing? Our answer is in the affirmative, but our reasons may appear somewhat cynical to the reader. We doubt whether the valuations so reached will prove sufficiently dependable in the case of the typical industrial company, great or small. We shall illustrate the difficulties of this job in our discussion of Aluminum Company of America (ALCOA) in the next chapter. Nonetheless it should be done for such common stocks. Why? First, many security analysts are bound to make current or projected valuations, as part of their daily work. The method we propose should be an improvement on those generally followed today. Secondly, because it should give useful experience and insight to the analysts who practice this method. Thirdly, because work of this kind could produce an invaluable body of recorded experience—as has long been the case in medicine—that may lead to better methods of procedure and a useful knowledge of its possibilities and limitations. The public-utility stocks might well prove an important area in which this approach will show real pragmatic value. Eventually the intelligent analyst will confine himself to those groups in which the future appears reasonably

predictable,\* or where the margin of safety of past-performance value over current price is so large that he can take his chances on future variations—as he does in selecting well-secured senior securities.

In subsequent chapters we shall supply concrete examples of the application of analytical techniques. But they will only be illustrations. If the reader finds the subject interesting he should pursue it systematically and thoroughly before he considers himself qualified to pass a final buy-or-sell judgment of his own on a security issue.

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\* These industry groups, ideally, would not be overly dependent on such unforeseeable factors as fluctuating interest rates or the future direction of prices for raw materials like oil or metals. Possibilities might be industries like gaming, cosmetics, alcoholic beverages, nursing homes, or waste management.

## COMMENTARY ON CHAPTER 11

"Would you tell me, please, which way I ought to go from here?"

"That depends a good deal on where you want to get to," said the Cat.

—*Lewis Carroll, Alice's Adventures in Wonderland*

### Putting a Price on the Future

Which factors determine how much you should be willing to pay for a stock? What makes one company worth 10 times earnings and another worth 20 times? How can you be reasonably sure that you are not overpaying for an apparently rosy future that turns out to be a murky nightmare?

Graham feels that five elements are decisive.<sup>1</sup> He summarizes them as:

- the company's "general long-term prospects"
- the quality of its management
- its financial strength and capital structure
- its dividend record
- and its current dividend rate.

Let's look at these factors in the light of today's market.

**The long-term prospects.** Nowadays, the intelligent investor should begin by downloading at least five years' worth of annual reports (Form 10-K) from the company's website or from the EDGAR

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<sup>1</sup> Because so few of today's individual investors buy—or should buy—individual bonds, we will limit this discussion to stock analysis. For more on bond funds, see the commentary on Chapter 4.



database at [www.sec.gov](http://www.sec.gov).<sup>2</sup> Then comb through the financial statements, gathering evidence to help you answer two overriding questions. What makes this company grow? Where do (and where will) its profits come from? Among the problems to watch for:

- The company is a “serial acquirer.” An average of more than two or three acquisitions a year is a sign of potential trouble. After all, if the company itself would rather buy the stock of other businesses than invest in its own, shouldn’t you take the hint and look elsewhere too? And check the company’s track record as an acquirer. Watch out for corporate bulimics—firms that wolf down big acquisitions, only to end up vomiting them back out. Lucent, Mattel, Quaker Oats, and Tyco International are among the companies that have had to disgorge acquisitions at sickening losses. Other firms take chronic write-offs, or accounting charges proving that they overpaid for their past acquisitions. That’s a bad omen for future deal making.<sup>3</sup>
- The company is an OPM addict, borrowing debt or selling stock to raise boatloads of Other People’s Money. These fat infusions of OPM are labeled “cash from financing activities” on the statement of cash flows in the annual report. They can make a sick company appear to be growing even if its underlying businesses are not generating enough cash—as Global Crossing and WorldCom showed not long ago.<sup>4</sup>

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<sup>2</sup> You should also get at least one year’s worth of quarterly reports (on Form 10-Q). By definition, we are assuming that you are an “enterprising” investor willing to devote a considerable amount of effort to your portfolio. If the steps in this chapter sound like too much work to you, then you are not temperamentally well suited to picking your own stocks. You cannot reliably obtain the results you imagine unless you put in the kind of effort we describe.

<sup>3</sup> You can usually find details on acquisitions in the “Management’s Discussion and Analysis” section of Form 10-K; cross-check it against the footnotes to the financial statements. For more on “serial acquirers,” see the commentary on Chapter 12.

<sup>4</sup> To determine whether a company is an OPM addict, read the “Statement of Cash Flows” in the financial statements. This page breaks down the

- The company is a Johnny-One-Note, relying on one customer (or a handful) for most of its revenues. In October 1999, fiber-optics maker Sycamore Networks, Inc. sold stock to the public for the first time. The prospectus revealed that one customer, Williams Communications, accounted for 100% of Sycamore's \$11 million in total revenues. Traders blithely valued Sycamore's shares at \$15 billion. Unfortunately, Williams went bankrupt just over two years later. Although Sycamore picked up other customers, its stock lost 97% between 2000 and 2002.

As you study the sources of growth and profit, stay on the lookout for positives as well as negatives. Among the good signs:

- The company has a wide "moat," or competitive advantage. Like castles, some companies can easily be stormed by marauding competitors, while others are almost impregnable. Several forces can widen a company's moat: a strong *brand identity* (think of Harley Davidson, whose buyers tattoo the company's logo onto their bodies); a *monopoly* or near-monopoly on the market; *economies of scale*, or the ability to supply huge amounts of goods or services cheaply (consider Gillette, which churns out razor blades by the billion); a unique *intangible asset* (think of Coca-Cola, whose secret formula for flavored syrup has no real physical value but maintains a priceless hold on consumers); a *resistance to substitution* (most businesses have no alternative to electricity, so utility companies are unlikely to be supplanted any time soon).<sup>5</sup>

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company's cash inflows and outflows into "operating activities," "investing activities," and "financing activities." If cash from operating activities is consistently negative, while cash from financing activities is consistently positive, the company has a habit of craving more cash than its own businesses can produce—and you should not join the "enablers" of that habitual abuse. For more on Global Crossing, see the commentary on Chapter 12. For more on WorldCom, see the sidebar in the commentary on Chapter 6.

<sup>5</sup> For more insight into "moats," see the classic book *Competitive Strategy* by Harvard Business School professor Michael E. Porter (Free Press, New York, 1998).

- The company is a marathoner, not a sprinter. By looking back at the income statements, you can see whether revenues and net earnings have grown smoothly and steadily over the previous 10 years. A recent article in the *Financial Analysts Journal* confirmed what other studies (and the sad experience of many investors) have shown: that the fastest-growing companies tend to overheat and flame out.<sup>6</sup> If earnings are growing at a long-term rate of 10% pretax (or 6% to 7% after-tax), that may be sustainable. But the 15% growth hurdle that many companies set for themselves is delusional. And an even higher rate—or a sudden burst of growth in one or two years—is all but certain to fade, just like an inexperienced marathoner who tries to run the whole race as if it were a 100-meter dash.
- The company sows *and* reaps. No matter how good its products or how powerful its brands, a company must spend some money to develop new business. While research and development spending is not a source of growth today, it may well be tomorrow—particularly if a firm has a proven record of rejuvenating its businesses with new ideas and equipment. The average budget for research and development varies across industries and companies. In 2002, Procter & Gamble spent about 4% of its net sales on R & D, while 3M spent 6.5% and Johnson & Johnson 10.9%. In the long run, a company that spends nothing on R & D is at least as vulnerable as one that spends too much.

**The quality and conduct of management.** A company's executives should say what they will do, then do what they said. Read the past annual reports to see what forecasts the managers made and if they fulfilled them or fell short. Managers should forthrightly admit their failures and take responsibility for them, rather than blaming all-purpose scapegoats like "the economy," "uncertainty," or "weak demand." Check whether the tone and substance of the chairman's letter stay constant, or fluctuate with the latest fads on Wall Street. (Pay special attention to boom years like 1999: Did the executives of

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<sup>6</sup> See Cyrus A. Ramezani, Luc Soenen, and Alan Jung, "Growth, Corporate Profitability, and Value Creation," *Financial Analysts Journal*, November/December, 2002, pp. 56–67; also available at <http://cyrus.cob.calpoly.edu/>.

a cement or underwear company suddenly declare that they were “on the leading edge of the transformative software revolution”?)

These questions can also help you determine whether the people who run the company will act in the interests of the people who *own* the company:

- Are they looking out for No. 1?

A firm that pays its CEO \$100 million in a year had better have a very good reason. (Perhaps he discovered—and patented—the Fountain of Youth? Or found El Dorado and bought it for \$1 an acre? Or contacted life on another planet and negotiated a contract obligating the aliens to buy all their supplies from only one company on Earth?) Otherwise, this kind of obscenely obese payday suggests that the firm is run by the managers, *for* the managers.

If a company reprices (or “reissues” or “exchanges”) its stock options for insiders, stay away. In this switcheroo, a company cancels existing (and typically worthless) stock options for employees and executives, then replaces them with new ones at advantageous prices. If their value is never allowed to go to zero, while their potential profit is always infinite, how can options encourage good stewardship of corporate assets? Any established company that reprices options—as dozens of high-tech firms have—is a disgrace. And any investor who buys stock in such a company is a sheep begging to be sheared.

By looking in the annual report for the mandatory footnote about stock options, you can see how large the “option overhang” is. AOL Time Warner, for example, reported in the front of its annual report that it had 4.5 billion shares of common stock outstanding as of December 31, 2002—but a footnote in the bowels of the report reveals that the company had issued options on 657 million more shares. So AOL’s future earnings will have to be divided among 15% more shares. You should factor in the potential flood of new shares from stock options whenever you estimate a company’s future value.<sup>7</sup>

“Form 4,” available through the EDGAR database at [www.sec.gov](http://www.sec.gov).

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<sup>7</sup> Jason Zweig is an employee of AOL Time Warner and holds options in the company. For more about how stock options work, see the commentary on Chapter 19, p. 507.

gov, shows whether a firm's senior executives and directors have been buying or selling shares. There can be legitimate reasons for an insider to sell—diversification, a bigger house, a divorce settlement—but repeated big sales are a bright red flag. A manager can't legitimately be your partner if he keeps selling while you're buying.

- Are they managers or promoters?

Executives should spend most of their time managing their company in private, not promoting it to the investing public. All too often, CEOs complain that their stock is undervalued no matter how high it goes—forgetting Graham's insistence that managers should try to keep the stock price from going either too low or too high.<sup>8</sup> Meanwhile, all too many chief financial officers give "earnings guidance," or guesstimates of the company's quarterly profits. And some firms are hype-o-chondriacs, constantly spewing forth press releases boasting of temporary, trivial, or hypothetical "opportunities."

A handful of companies—including Coca-Cola, Gillette, and USA Interactive—have begun to "just say no" to Wall Street's short-term thinking. These few brave outfits are providing more detail about their current budgets and long-term plans, while refusing to speculate about what the next 90 days might hold. (For a model of how a company can communicate candidly and fairly with its shareholders, go to the EDGAR database at [www.sec.gov](http://www.sec.gov) and view the 8-K filings made by Expeditors International of Washington, which periodically posts its superb question-and-answer dialogues with shareholders there.)

Finally, ask whether the company's accounting practices are designed to make its financial results transparent—or opaque. If "nonrecurring" charges keep recurring, "extraordinary" items crop up so often that they seem ordinary, acronyms like EBITDA take priority over net income, or "pro forma" earnings are used to cloak actual losses, you may be looking at a firm that has not yet learned how to put its shareholders' long-term interests first.<sup>9</sup>

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<sup>8</sup> See note 19 in the commentary on Chapter 19, p. 508.

<sup>9</sup> For more on these issues, see the commentary on Chapter 12 and the superb essay by Joseph Fuller and Michael C. Jensen, "Just Say No to Wall Street," at <http://papers.ssrn.com>.

**Financial strength and capital structure.** The most basic possible definition of a good business is this: It generates more cash than it consumes. Good managers keep finding ways of putting that cash to productive use. In the long run, companies that meet this definition are virtually certain to grow in value, no matter what the stock market does.

Start by reading the statement of cash flows in the company's annual report. See whether cash from operations has grown steadily throughout the past 10 years. Then you can go further. Warren Buffett has popularized the concept of *owner earnings*, or net income plus amortization and depreciation, minus normal capital expenditures. As portfolio manager Christopher Davis of Davis Selected Advisors puts it, "If you owned 100% of this business, how much cash would you have in your pocket at the end of the year?" Because it adjusts for accounting entries like amortization and depreciation that do not affect the company's cash balances, owner earnings can be a better measure than reported net income. To fine-tune the definition of owner earnings, you should also subtract from reported net income:

- any costs of granting stock options, which divert earnings away from existing shareholders into the hands of new inside owners
- any "unusual," "nonrecurring," or "extraordinary" charges
- any "income" from the company's pension fund.

If owner earnings per share have grown at a steady average of at least 6% or 7% over the past 10 years, the company is a stable generator of cash, and its prospects for growth are good.

Next, look at the company's capital structure. Turn to the balance sheet to see how much debt (including preferred stock) the company has; in general, long-term debt should be under 50% of total capital. In the footnotes to the financial statements, determine whether the long-term debt is fixed-rate (with constant interest payments) or variable (with payments that fluctuate, which could become costly if interest rates rise).

Look in the annual report for the exhibit or statement showing the "ratio of earnings to fixed charges." That exhibit to Amazon.com's 2002 annual report shows that Amazon's earnings fell \$145 million short of covering its interest costs. In the future, Amazon will either have to earn much more from its operations or find a way to borrow money at lower rates. Otherwise, the company could end up being

owned not by its shareholders but by its bondholders, who can lay claim to Amazon's assets if they have no other way of securing the interest payments they are owed. (To be fair, Amazon's ratio of earnings to fixed charges was far healthier in 2002 than two years earlier, when earnings fell \$1.1 billion short of covering debt payments.)

A few words on dividends and stock policy (for more, please see Chapter 19):

- The burden of proof is on the company to show that you are better off if it does not pay a dividend. If the firm has consistently outperformed the competition in good markets and bad, the managers are clearly putting the cash to optimal use. If, however, business is faltering or the stock is underperforming its rivals, then the managers and directors are misusing the cash by refusing to pay a dividend.
- Companies that repeatedly split their shares—and hype those splits in breathless press releases—treat their investors like dolts. Like Yogi Berra, who wanted his pizza cut into four slices because “I don’t think I can eat eight,” the shareholders who love stock splits miss the point. Two shares of a stock at \$50 are not worth more than one share at \$100. Managers who use splits to promote their stock are aiding and abetting the worst instincts of the investing public, and the intelligent investor will think twice before turning any money over to such condescending manipulators.<sup>10</sup>
- Companies should buy back their shares when they are cheap—not when they are at or near record highs. Unfortunately, it recently has become all too common for companies to repurchase their stock *when it is overpriced*. There is no more cynical waste of a company’s cash—since the real purpose of that maneuver is to enable top executives to reap multimillion-dollar paydays by selling their own stock options in the name of “enhancing shareholder value.”

A substantial amount of anecdotal evidence, in fact, suggests that managers who talk about “enhancing shareholder value” seldom do. In investing, as with life in general, ultimate victory usually goes to the doers, not to the talkers.

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<sup>10</sup> Stock splits are discussed further in the commentary on Chapter 13.

## CHAPTER 12

### *Things to Consider About Per-Share Earnings*

This chapter will begin with two pieces of advice to the investor that cannot avoid being contradictory in their implications. The first is: Don't take a single year's earnings seriously. The second is: If you do pay attention to short-term earnings, look out for booby traps in the per-share figures. If our first warning were followed strictly the second would be unnecessary. But it is too much to expect that most shareholders can relate all their common-stock decisions to the long-term record and the long-term prospects. The quarterly figures, and especially the annual figures, receive major attention in financial circles, and this emphasis can hardly fail to have its impact on the investor's thinking. He may well need some education in this area, for it abounds in misleading possibilities.

As this chapter is being written the earnings report of Aluminum Company of America (ALCOA) for 1970 appears in the *Wall Street Journal*. The first figures shown are

	1970	1969
Share earnings <sup>a</sup>	\$5.20	\$5.58

The little <sup>a</sup> at the outset is explained in a footnote to refer to "primary earnings," before special charges. There is much more footnote material; in fact it occupies twice as much space as do the basic figures themselves.

For the December quarter alone, the "earnings per share" are given as \$1.58 in 1970 against \$1.56 in 1969.

The investor or speculator interested in ALCOA shares, reading



those figures, might say to himself: "Not so bad. I knew that 1970 was a recession year in aluminum. But the fourth quarter shows a gain over 1969, with earnings at the rate of \$6.32 per year. Let me see. The stock is selling at 62. Why, that's less than ten times earnings. That makes it look pretty cheap, compared with 16 times for International Nickel, etc., etc."

But if our investor-speculator friend had bothered to read all the material in the footnote, he would have found that instead of one figure of earnings per share for the year 1970 there were actually *four*, viz.:

	1970	1969
Primary earnings	\$5.20	\$5.58
Net income (after special charges)	4.32	5.58
Fully diluted, before special charges	5.01	5.35
Fully diluted, after special charges	4.19	5.35

For the fourth quarter alone only two figures are given:

Primary earnings	\$1.58	\$1.56
Net income (after special charges)	.70	1.56

What do all these additional earnings mean? Which earnings are true earnings for the year and the December quarter? If the latter should be taken at 70 cents—the net income after special charges—the annual rate would be \$2.80 instead of \$6.32, and the price 62 would be "22 times earnings," instead of the 10 times we started with.

Part of the question as to the "true earnings" of ALCOA can be answered quite easily. The reduction from \$5.20 to \$5.01, to allow for the effects of "dilution," is clearly called for. ALCOA has a large bond issue convertible into common stock; to calculate the "earning power" of the common, based on the 1970 results, it must be assumed that the conversion privilege will be exercised if it should prove profitable to the bondholders to do so. The amount involved in the ALCOA picture is relatively small, and hardly deserves detailed comment. But in other cases, making allowance for conversion rights—and the existence of stock-purchase warrants—can