Notes to Ben Graham's Security Analysis

2nd and 3rd Editions

Vinod Palikala

August, 2009

As Graham notes in the preface, the book is "concerned chiefly with concepts, methods, standards, principles, and, above all, with logical reasoning". To get the most out of this book, it is essential to see past the many seemingly rigid guidelines to understand Graham's reasoning. This is my attempt to summarize the main message Ben Graham is trying to convey. In the book, it is difficult to relate the specific topic being discussed with the broader context. I added comments and formatted the notes to make it easier to understand the overall message. In many cases, I ended up just noting the most important points of each chapter.

Part I is from the 3rd edition as this part is covered much more comprehensively in the 3rd edition. All the other parts are from 2nd edition which I found to be better organized and also easier to comprehend. Please send any feedback to vpalika@hotmail.com.

Contents

Part I: Survey and Approach

Chapter 1: Introduction

Objectives of security analysis

1. To present important facts regarding a stock or bond in a manner most informing and useful to an actual or potential owner.
2. Seeks to reach dependable conclusions, based upon facts and applicable standards as to safety and attractiveness of a given security at the current or assumed price.

Common Stock Classification

- Primary common stocks are those of large and prominent companies, generally with a good record of earnings and of continued dividends. There may be some 200 issues of this type about which there would be little dispute and perhaps similar amount that may be disputable.
- Secondary common stocks are marginal in the sense that they are regarded as very close to the primary grade and expected to reach that privileged status in due course. Perhaps 80% of listed issues and 90% of unlisted issues belong to the secondary category.
- Market price behavior is influenced in significant ways by the category to which the stock belongs and should be taken into account.

Graham rejects the standard notion of industry lifecycle – expansion, slowing down, decline and complete decay or extinction. He believes the most striking characteristic of large American businesses is their repeated pendulum swings from better to poorer results and back. A remarkably small percentage of these enterprises actually go out of business through voluntary liquidation or sheriff's auction. Those that have ended their corporate existence have usually effected this via a merger or sale as a going concern which meant continuance of function if not of name. Graham suggests this point to be of greatest importance in the determination of a sophisticated investment policy.

Graham suggests that dividends will be controlled by profits and they will not operate as a separate factor of consequence in investment practice.

Graham notes that it is strange that neither World War I nor World War II had any exceptional impact on the course of stock prices.

Chapter 2: The Scope and Limitations of Security Analysis

Analysis connotes the careful study of available facts with the attempt to draw conclusions there from based on established principles and sound logic. But applying analysis to the field of securities we encounter the serious problem that investment is by nature not an exact science. The same is true for law and medicine, for here also both individual skill (art) and chance are important factors in determining success or failure. Nevertheless, in these professions analysis is not only useful but also indispensable, so that the same should probably be true in the field of investment and possibly that of speculation.

Functions of Security Analysis

1. Descriptive Function: Limits itself to marshaling the important facts relating to an issue and presenting them in a coherent, readily intelligible manner.
    - The least imaginative type is what is presented by various securities manuals (Valueline). Here the material is accepted in the form supplied by the company.
    - A more penetrating descriptive analysis is by various kinds of adjustments in order to bring the true operating results in the period covered and particularly in order to place the data of a number of companies on a fairly comparable plane. (LIFO vs. FIFO, non-recurring gains/losses, nonconsolidated subsidiaries, reserves)
    - On a still higher level would include consideration of the changes in the company's position over a long period of years, also a detailed comparison with others in the same field, also projects of earning power on various assumptions as to future conditions.
2. The Selective Function: The analyst must be ready to pass judgment on the merits of securities and is expected to advice others on their sale, purchase, retention or exchange.
    - Graham says that the laymen belief that analyst should be able to give advice of this sort about any stock or bond issue at any time is incorrect. There are times and situations that are propitious for a sound analytical judgment; others which is poorly qualified to handle; many others for which his study and his conclusions may be better than nothing, but still of questionable value to the investor.
    - A proper analysis of common stock will take into account all the important points in the company's past record and present position, and it will apply informed judgment to the projection of future results.
    - The approach Graham suggests to select common stocks is to value the stock independently of its market price and to purchase it when it is available at a substantial discount to this value. This independent value is called Intrinsic Value or Central Value.
    - Intrinsic value is defined as "that value which is justified by the facts e.g., assets, earnings, dividends, definite prospects.". In the usual case the most important single factor determining value is now held to be the indicated average future earning power. IV would then be found by first estimating this earnings power, and then multiplying that estimate by an appropriate capitalization factor. The multiplier takes into account a large number of valuation elements, such as the expected stability of earnings, the expected growth factor, the expected dividend policy – all of which may be comprehended in the quality of the company – and perhaps the assets behind the shares.
    - Graham says that experience affirms that the price and the independently ascertained value do tend to converge as time goes on.
    - The weakness of this method is lack of precision and un-dependable nature of any calculation of economic future. A valuation may be very skillfully done in the light of all pertinent data and the soundest judgment of future probabilities; yet the market may delay adjusting itself to the indicated value for so long a period that new conditions may supervene and bring with them a new value. Thus even though the price ultimately converges with that new value, the old valuation may have proved undependable.

- These limitations should be acknowledged by the analyst and must use good judgment in distinguishing between securities and situations that are better suited and those that are worse suited to value analysis. Its working assumption is that the past record affords at least a rough guide to the future. The more questionable this assumption, the less valuable is the analysis. Hence this technique is more useful when applied to a business of inherently stable character than to one subject to wide variations and more useful when carried on under fairly normal general conditions than in times of great uncertainty and radical change.
- There are three general areas in which value analysis will operate successfully
    - Inherently stable securities – conservatively capitalized public utilities and strongly entrenched industrials.
    - Cases of extreme disparity between price and indicated value. Here the analyst relies upon a large initial margin of safety to absorb and offset the uncertainties of the future. Here diversification is especially valuable.
    - Comparative analysis to determine if one if preferable to the other.
- There are two types of issues that do not lend themselves satisfactorily to the intrinsic value approach.
    - Those that are essentially speculative in character, meaning thereby that their apparent value is almost entirely dependent upon the vicissitudes of the future. Ex. Shares of high cost or marginal producers and those with speculative capital structure.
    - The other type is the common stock of a strong enterprise that is considered to have unusually favorable prospects of continued growth. The difficulty for the analyst here is to place a sound arithmetical valuation on an optimistic outlook.

3. The Critical Function: The analyst must be highly critical of accounting methods. He must also concern himself with all corporate policies affecting the security owner, for the value may be largely dependent upon the acts of the management. In this category are included questions of capitalization setup, of dividend and expansion policies, of managerial competence and compensation, and even of continuing or liquidating an unprofitable business.

Chapter 3: The Behavior of the Security Markets

- Almost any security may be a sound purchase at some real or prospective price, and an indicated sale at another price.
- A competent analyst should have sufficient familiarity with the important behavior patterns of the securities markets so that he can form intelligent conclusions about the probable price-movement characteristics of various types of securities issues. An essential part of each analysis a general anticipation of future earnings position, based on adequate observation, of the broad pattern of price fluctuations that is likely for the security.
- Graham says that experience shows that first-grade common stocks may be dangerously overpriced in the upper reaches of a bull market and this is more pronounced for less

prominent issues. Hence it is important to have independent standards of value which resist the pervasive optimism and pessimism of alternating market swings.

- Graham posits that for most leading issues the price fluctuations correspond fairly well to business valuations made independently of price and in accordance with rational techniques of appraisal. In the smaller and less prominent companies – the secondary issues – median market prices fall below the apparent value of the business.
- A practical observation that is based on experience rather than theory that Graham notes is that when the general market is high there are always a number of individual issues that appear definitely undervalued by objective standards and consequently even more attractive in contrast to the inflated level of other stocks. The analyst may be tempted to recommend these as unusual opportunities, but that is a time that calls for especial caution. When a downturn comes it is likely to decline in price along with the general market and to fully as great an extent. In a word, beware of bargains when most stocks seem very high.
- The recurrent but highly irregular stock-market cycles are of prime interest to the analyst, because their low ranges and high ranges almost always mark areas of undervaluation and overvaluation for both standard and secondary common stocks in general. In intermediate areas of the general market or during its minor downturns, there are significant price fluctuations in many secondary stock issues when standard stocks remain in a neutral range.
- Graham advices that it is better to sacrifice quick marketability to attractive value rather than vice versa.

Chapter 4: Investment and Speculation

- Graham asserts that safety cannot be judged by the result, but must be posited in advance and that it can only be useful if it is based on something more tangible than the psychology of the purchaser. The safety must be assured or at least strongly indicated, by the application of definite and well-established standards.
- An investment operation is one which, upon thorough analysis, promises safety of principal and a satisfactory return. Operations not meeting these requirements are speculative.
    - An "investment operation" is used instead of an issue because it is unsound to think of investment character as inhering in an issue since price is an essential element. So a stock may have investment merit at one price level but not at another. In addition, an investment might be justified in a group of issues, which would not be sufficiently safe if made in any one of them singly.
    - By "thorough analysis" Graham means, the study of the facts in the light of established standards of safety and value. As an example of analysis, paying 40 times its highest recorded earnings in 1929, merely because of its excellent prospects, would be clearly ruled out as devoid of all quality of thoroughness.
    - Graham notes that in "promises safety of principal" the "Safety" sought in an investment is not absolute or complete. It means, rather, protection against loss under all normal or reasonably likely conditions or variations. A safe stock is one

which holds ever prospect of being worth the price paid except under quite unlikely contingencies. Where study and experience indicate that an appreciable chance of loss must be recognized and allowed for, we have a speculative situation.

- "Satisfactory return" covers any rate or amount of return, however low, which the investor is willing to accept, provided he acts with reasonable intelligence.
- An investment operation is one that can be justified on both qualitative and quantitative grounds. This is an additional criterion for investment.

- Investment must always consider price as well as the quality of the security. Strictly speaking, there can be no such thing as an "investment issue" in the absolute sense, i.e., implying that it remains an investment regardless of price. In his opinion, the great majority of common stocks of strong companies must be considered speculative a good part of the time, simply because their price is too high to warrant safety of principal in any intelligible sense of the phrase.
- It may be thought that sound analysis should produce successful results in any type of situation, including confessedly speculative i.e. those subject to substantial uncertainty and risk. Since if selection of speculative issues is based on expert study of companies position, should not this approach give the purchaser considerable advantage? Graham thinks that this argument is deceptive and notes several arguments for placing chief reliance upon analysis in speculative situations
  - The mechanics of speculation causes increased transaction costs.
  - Underlying analytical factors in speculative situations are subject to swift and sudden revision i.e. IV may change before market price reflects that value even more so in speculative situations.
  - Impact of unknown factors is skewed negatively in speculative situations. Those on the inside often have an advantage of this kind which nullifies and loads the dice against the analyst working with some of the facts concealed from him.
  - The value of analysis diminishes as the element of chance increases.
- It would be prudent to consider analysis as auxiliary rather than as a guide in speculation. It is only where chance plays a subordinate role that the analyst can properly speak in an authoritative voice and accept responsibility for the results of his judgments.
- For investment, the future is essentially something to be guarded against rather than to be profited from. If future brings improvement, so much the better; but investment as such cannot be founded in any important degree upon the expectation of improvement. Speculation, on the other hand, may always properly –and often soundly – drive its basis and its justification from prospective developments that differ from past performance.
- A great deal of common stock buying is done with reasonable care and may be called intelligent speculation; a great is done upon inadequate consideration and for unsound reasons and thus must be called unintelligent; in exceptional cases a common stock may be bought on such attractive terms, qualitative and quantitative, as to set the inherent risk at a minimum and justify the title of investment.

- It is possible to argue that issues with high degree of speculative risk individually may be made part of an investment operation provided (1) the changes of gain definitely outweigh those of loss and (2) there is ample diversification. Ex. Low priced common stocks meeting certain conditions and even long term calls to buy at prices much above their current levels. This is a marginal area in which distinctions between investment and speculation become blurred.
- A proposed purchase that cannot quality as an investment automatically falls into the speculative category. But at times it may be useful to view such purchase somewhat differently and to divide the price paid into an investment component and a speculative component. GE selling at $38 in 1939 might have concluded a price up to say $25 was justified from the standpoint of investment value. The remaining $13 would represent stock market appraisal of company's excellent long term prospects and would constitute the speculative component.
- To regard investment quality as something independent of price is a fundamental and dangerous error.
- Intrinsic value is by no means limited to the investment component of total value – but may properly include a substantial component of speculative value, provided that such speculative value is intelligently arrived at. Hence the market price may be said to exceed intrinsic value only when the market price is clearly the reflection of unintelligent speculation.
- In order to take proper advantage of the margin of safety principle in investment operations it is almost always essential that the investor practice adequate diversification.

Chapter 5: Investment Policy

Classes of security buyers

1. Defensive investors are those who should place their chief emphasis upon the avoidance of any serious mistakes or losses and their second emphasis upon freedom from effort, annoyance, and the necessity of making frequent investment decisions. The great majority of security holders belong in the defensive category.
    - Defensive investors should divide his funds into two parts. The first part should be in US savings bonds. The second part should be placed in a diversified list of leading common stocks, purchased at a reasonable price level. The relative proportions should normally fall between 75-25 to 25-75.
    - The chief requirement of all defensive investors is that they exercise firmness in the application of the simple principles of sound procedure outlined above. The main hazards they face are of three kinds (1) stock market speculation (2) buying second rate issues (3) buying good common stocks at excessive prices.
2. Enterprising investors are willing and able to devote time and care to the selection of sound and attractive investments.
    - The first rule of intelligent action must be that he will never embark upon a security operation which he does not fully comprehend and which he cannot justify by reference to the results of his own study and experience. The endeavor to make

money in securities is a business undertaking, and it must be conducted in accordance with business principles.

- An enterprising investor may follow the simple two-part policy of the defensive investor with respect to some portion of his funds, and employ the remainder in more aggressive operations. He may endeavor to buy in low markets and sell in high markets. He may try to select companies that have unusual prospects for long term growth, making sure he is not paying too much in advance for these favorable possibilities. Or, he may place his prime emphasis upon the purchase of bargain issues which are selling considerably below their true value.

- The old rule for ordinary investor was that he should buy sound securities when he had funds available. Much of this view retains its validity. However, the time when the investor should clearly not buy common stocks is during the upper ranges of a bull market. For most issues this is tantamount to saying that he should not buy them at prices higher than can be justified by conservative analysis.

Chapter 6: Nature and Sources of the Analyst's Information

- Quite a few classes of companies are in industries subject to regulation by public agencies and are required to file financial statements with them which are open to public inspection. Most of these reports are considerably more elaborate than the average published statement (SEC). These include railroads, public utilities, banks and insurance companies.
- Some important information still not generally available like explanation of important differences between the income reports and that on which income tax was computed and present insured or appraised value of the fixed assets.
- Trade journals provide a detailed picture of the current and prospective state of the industry. Thus it is usually possible for the analyst to acquire without undue difficulty a background of fairly complete knowledge of the history and problems of the industry.

Chapter 7: Quantitative and Qualitative Factors in Security Analysis. The Margin of Safety Concept.

- Analyzing a security involves an analysis of the business. Such a study can be carried out to an unlimited degree of detail and hence must include a sense of proportion in the use of his technique. He must not be misled by the availability of a mass of data into making elaborate studies of nonessentials.
- Analyst must recognize that the value of a particular kind of data varies greatly with the type of enterprise which is being studied. The 5 year record of net earnings of a railroad or large chain-store may afford, if not a conclusive basis, a reasonably sound one measuring the attractiveness of common shares. But same statistics supplied by one for smaller oil producing companies may well prove more deceptive than useful since they are chiefly resultant of two factors viz. price received and production, both of which are likely to be radically different in the future than in the past.
- It is convenient at times to classify the elements entering into an analysis under two headings: the quantitative and the qualitative.

- Quantitative items might be called the company's statistical exhibit and may be sub classified under (1) capitalization (2) earnings and dividends (3) assets and liabilities, and (4) operating statistics.
- Qualitative factors on the other hand deal with such matters as the nature of the business; the relative position of the company in the industry; its physical, geographical and operating characteristics; the character of the management; the outlook for the unit, industry and for business in general. Questions of this sort are not dealt with ordinarily in the company's reports.
- Quantitative factors are more easily obtainable and much better suited to forming of definite and dependable conclusions. Furthermore the financial results will themselves epitomize many of the qualitative elements, so that a detailed study of the latter may not add much of importance to the picture.
- Graham expresses serious reservation about the practice of first selecting the most promising industry or industries and then picking out the best companies in those industries.
- If the future of an industry is definitely rosy, stock prices will almost always reflect this element quite fully; hence recommendations based on such "analysis" may be too obvious and come too late to offer much of value. Industry analysis can be most useful when it leads to well-founded conclusions differing from those in vogue. Typically, such conclusions would forecast the reversal of a condition or trend that had been so long continued as to be accepted as permanent in Wall Street. Such reversals of this kind are surprisingly common.
- We shall assume that an intensive study of an individual security will carry with it the study of the industry-wide conditions which have contributed to the company's performance.
- Average Earnings vs. Trend of Future Earnings: Graham is critical of using past earnings growth rate trend into the future in valuing the business.
    - Economic adjustment militates against the maintenance of abnormal prosperity or depression are equally opposed to the indefinite continuance of an upward or downward trend. By the time the trend has become clearly noticeable, conditions may well be ripe for a change.
    - Graham disagrees with the objection that as far as the future is concerned it is just as logical to expect a past trend to be maintained as to expect a past average to be repeated. This is because, analysis does not assume that a past average will be repeated, but only that it supplies a rough index to what may be expected of the future. A trend, however, cannot be used as a rough index; it represents a definite prediction of either better or poorer results and for practical purposes it must be either right or wrong.
    - Emphasis on trend is likely to result in errors of overvaluation or under valuation. This is true because no limit may be fixed on how far ahead the trend should be projected; and therefore the process of valuation, while seemingly mathematical, is in reality psychological and quite arbitrary. Trend is essentially a qualitative factor.
- Many are convinced that the dangers of overpaying for stocks of strong and promising companies are much less than those of buying poor quality issues because they seem to

offer a lot of assets or earnings for the money. This might be true according to Graham for untrained security buyers as they are easily led astray by an apparently attractive price to buy low grade securities but that a competent analyst would have shown that these securities are not attractively priced in reality and that the untrained have been deceived by a temporarily good showing or had overlooked serious weakness.

- It is advisable for the defensive investor to require first quality in all his securities. He will get this ordinarily by buying the securities of large, well known enterprises, which his adviser can certify to him as prosperous, well managed and strongly entrenched. He will do well to require of the analyst some assurance also that the price he is to pay is not inordinately high in terms of accepted standards of value.
- The enterprising investor may range more freely over the area of varied quality. Within limits he may trade off, as it were, the qualitative factors against the quantitative ones, making sure that the composite result indicates an underlying value well in excess of price.
- The kind of security analysis we regard as a most rewarding discipline is concerned primarily with values which are supported by the facts and not those which depend largely upon expectations.
    - The analyst must take possible future changes into account but his primary aim is not so much to profit from them as to guard against them.
    - Three offsets to the hazards of the future:
        i. He may place his prime emphasis upon the presence of a large margin of safety for the security, which should be able to absorb whatever adverse developments are reasonably likely to occur. In such cases he will be prepared to see unsatisfactory earnings for the issue during depression periods, but he will expect that the company's financial strength will carry it unharmed through such a setback and its average earnings will be enough to justify fully the stock purchase.
        ii. He may emphasize the factor of inherent stability. Here the nature of the industry or the company is supposedly such as to immunize it in a large measure from the recurrent adversity that befalls most enterprises. Stability of this kind is possessed by nearly all public utility groups, well established chain-stores, by certain makes of trademarked goods for public consumption.
        iii. He may give considerable weight to the future prospects themselves and he should favor companies which his study and judgment tell him have better than average expectations. He will value such concerns more liberally than others. But he must be aware of carrying such liberality to the point of enthusiasm, for at that point he loses the sober moderation that distinguishes the investment approach from the speculative one. The security analyst is on safest ground when he treats favorable expectations as an added reason for a purchase which would not be unsound if based on the past record and the present situation.
    - The element of stability has particular appeal because it minimizes the risk that new conditions will upset his calculations derived from the past record. Stability may be

expressed in quantitative terms but in our opinion stability is really a qualitative trait, because it derives from the character of the business and not from its statistical record.

- Whenever the commitment depends to a substantial degree upon qualitative factors – whenever, that is, the price is considerably higher than the figures alone would justify – then the analytical basis of approval is lacking. In the mathematical phrase, a satisfactory statistical exhibit is a necessary though by no means a sufficient condition for a favorable decision by the analyst.

Chapter 8: Classification of Securities

Graham warns that the basis for classification is not the title of the issue, but the practical significance of its specific terms and status to the owner.

The following classification is suggested:

i. Investment bonds and preferred stocks: Includes all issues, whatever the title, in which prospective change of value may fairly be said to hold minor importance. The owner's dominant interest lies in the safety of his principal and his sole purpose in making the commitment is to obtain a steady income.

ii. Speculative bonds and preferred stocks: Prospective changes in the value of the principal assume real significance.

   a. Convertibles, etc.: The investor hopes to obtain the safety of a straight investment, with an added possibility of profit by reason of a conversion right or some similar privilege.

   b. Low grade senior issues: A definite risk of loss is recognized, which is presumably offset by a corresponding chance of profit. These differ from Group iii, in two respects – they enjoy an effective priority over some other junior issue, thus giving them a degree of protection and their profit possibilities, however substantial, have a fairly definite limit, in contrast with the unlimited percentage of possible gain associated with common stock investment.

iii. Common stocks

A bond of investment grade which happens to sell at any unduly low price would belong in the second group, since the purchaser have a reason to expect in an appreciation of its market price. A preferred stock selling at 10 cents on the dollar should be viewed not as a preferred stock at all but as a common stock.

The primary emphasis is not placed on what the owner is legally entitled to demand but on what he is likely to get or justified in expecting, under conditions which appear probable at the time of purchase.

Part II deals with Group (i), Part III deals with Group (ii) and Parts IV, V, VI deal with Group (iii).

Part II: Fixed Value Investments

Chapter 6: The Selection of Fixed Value Investments

Graham addresses the question of whether investment in bonds in logical given the extreme losses suffered during the great depression. He suggests that the 1927-33 experience was so abnormal that it does not constitute a fair basis for judgment.

Fundamental principle of bond investment: Bond form is inherently unattractive. Instead of associating bonds primarily with the presumption of safety as has long been the practice – it would be sounder to start with what is not presumption but fact, viz., that a bond is an investment with limited return. The essence of proper bond selection consists, in obtaining specific and convincing factors of safety in compensation for the surrender of participation in profits. Since the chief emphasis must be placed on the avoidance of loss, bond selection is primarily a negative art – process of exclusion and rejection. Broadly speaking, there is no such thing as being unduly cautious or exacting in the purchase of fixed value investments.

Four additional principles for selection of individual bonds:

1. Safety is measured not be specific lien or other contractual rights, but by the ability of the issuer to meet all of its obligations.
2. This ability should be measured under conditions of depression rather than prosperity.
3. Deficient safety cannot be compensated for by an abnormally high coupon rate.
4. The selection of all bonds for investment should be subject to rules of exclusion and to specific quantitative tests corresponding to those prescribed by statute to govern investments of savings banks.

Principle 1: Safety Not Measured by Lien but by Ability to Pay

The primary emphasis must be the strength and soundness of the obligor enterprise. The older view of emphasis on the assets backing the bond does not work in practice due to

a) The shrinkage of property values when the business fails – Properties are rarely adaptable to uses other than those for which they were constructed. Hence, if enterprise fails, its fixed assets ordinarily suffer an appalling shrinkage in realizable value. The value of pledged assets assumes practical importance only in the event of a default, and in such an event the book figures are almost invariably found to be unreliable and irrelevant.

b) The difficulty of asserting the bondholders supposed legal rights – Courts reluctant to permit bondholders to take over properties by foreclosing if there is any possibility that these assets may have a fair value in excess of their claim.

c) The delays and other disadvantages incident to a receivership – More valuable the pledged assets the longer the time it requires to work out an equitable division of value between various bond and stock issues.

Basic principle is to avoid trouble and not to protect himself in the event of trouble. Corollaries of this principle:

i. Absence of lien is of minor consequence

ii. Buy the highest yielding obligation of a sound company – select a company meeting every test of strength and soundness, and then purchase its highest yielding obligation, which would usually mean its junior rather than its first lien bonds

iii. Senior liens are to be favored, unless the junior obligations offer a substantial advantage

Chapter 7: The Selection of Fixed Value Investments: Second and Third Principles

Principle 2: Bonds Should be Bought on a Depression Basis

Any bond can do well when the conditions are favorable; it is only under acid test of depression that the advantages of strong over weak issues become manifest and vitally important. Confidence in the ability of bond issue to weather depression may be based either on

a) Character of the industry and the particular business will be immune from a drastic shrinkage in earning power. The distinction is between those which are more and less affected by depression. The more stable the type of enterprise, the better suited it is to bond financing and the larger the portion of the supposed normal earning power which may be consumed by interest charges. If there is such a lack of inherent stability as to make survival of the enterprise doubtful under unfavorable conditions, then the bond issue cannot meet the requirements of fixed value investment, even though the margin of safety, measured by past performance, may be exceedingly large. Such a bond will meet the quantitative but not the qualitative test, but both are essential to our concept of investment.

b) The margin of safety is so large that it can undergo such shrinkage without resultant danger. The margin of safety would be dependent on the character of the industry.

Even though the conditions prevalent in the depression years may not be duplicated, the behavior of various types of securities at the time should throw a useful light on investment problems.

Proper Theory of Bond Financing: A reasonable amount of funded debt is of advantage to a prosperous business, because the stockholders can earn a profit about interest charges through the use of the bond holder's capital. It is desirable for both the corporation and the investor that the borrowing is limited to an amount which can safely be taken care of under all conditions.

Graham suggests that an investor should reconcile himself to accepting an unattractive yield from the best bonds rather than risking his principle in a second grade issue for the sake of a large coupon.

Principle 3: Unsound to Sacrifice Safety for Yield

In the traditional theory of bond investment a mathematical relationship is supposed to exist between the interest rate and the degree of risk incurred. The interest return is divided into

two components, the first constituting of pure interest – the rate obtainable with no risk of loss – and the second representing the premium obtained to compensate for the risk assumed. This theory assumes that bond interest rates measure the degree of risk on some reasonable precise actuarial basis. It would follow that, by and large, the return from high and low yielding investments should tend to equalize, since what the former gains in income would be offset by their greater percentage of principal losses, and vice versa.

Graham does not believe such a mathematical relationship exists between yield and risk. Security prices and yields are not determined by any exact mathematical calculation but they rather depend upon the popularity of the issue. This popularity reflects in a general way the investor's view as to the risk involved, but it is also influenced largely by other factors, such as the degree of familiarity of the public with the company and the issue and the ease with which the bond can be sold.

The relationship between different kinds of investments and the risk of loss is entirely too indefinite and to variable with changing conditions, to permit sound mathematical formulation. This is particularly true because investment losses are not distributed fairly evenly in point of time, but tend to be concentrated at intervals, i.e. during periods of general depression.

The main objections to sacrificing safety for yield is that (a) such a policy requires wide distribution of risk in order to minimize the influence of luck by holding a large number of different bonds and (b) more importantly the danger that many risky investments may collapse together in a depression period, so that the investor in high yielding issues will find a period of large income followed suddenly by a deluge of losses of principal.

The bond buyer is neither financially nor psychologically equipped to carry on extensive transactions involving setting up of reserves out of regular income to absorb losses in substantial amounts suffered at irregular intervals. Graham may not have this objection for say a fund manager who does not have these constraints.

Graham suggest that while risk of losing principal should not be accepted merely by a higher yielding coupon, he does not object to purchasing a bond at a substantial discount to par. While these are mathematically equivalent, the psychological difference is important. The purchaser of low priced bond is aware of the risk and is more likely to make a thorough investigation of the issue and carefully appraise the chance of profit and loss.

Graham suggests it would be sounder to start with definite standards of safety, which all bonds must be required to meet in order to be eligible for further consideration. Issuing failing to meet these minimum requirements should automatically be disqualified as straight investments regardless of high yield, attractive prospects, or other grounds. Essentially, bond selection should consist of working upward from definite minimum standards rather than working downward in haphazard fashion from some ideal but unacceptable level of maximum security.

Chapter 8: Specific Standards for Bond Investment

Principle 4: Definite Standards of Safety Must be Applied

Graham uses the New York Savings bank law provisions on bond investment to develop standards.

1. The Nature and Location of the Business: Graham suggests that investor should not reject any class of investments but require a stronger exhibit by the individual bond to compensate for any weakness supposedly inherent in its class.

   On the subject of foreign bonds, theory states that bonds of a corporation cannot enjoy better security than the obligations in which the corporation is located. He notes that foreign corporation bonds have an advantage over government bonds in that the holder enjoys specific legal remedies.

2. The Size of the Enterprise: Graham notes that bonds of smaller companies are more vulnerable to unexpected happenings and that they may be disqualify for conservative investment.

Chapter 9: Specific Standards for Bond Investment

3. The Terms of the Issue: Graham notes that standards of safety should not be relaxed because of early maturity (short term bonds).

4. The record of Solvency and Dividend Payments: Notes that dividend record is not conclusive evidence of financial strength. The evidence given by balance sheet and income account must be regarded as more dependable than dividend payments.

5. The relation of Earnings to Interest Payments: This is the most important specific test of safety. There are three specific items of note

   - Method of computing the earnings coverage: Suggests using the total fixed charges in computing the charges.
   - Amount of coverage required: Suggests three times for industrial stocks.
   - The period required for the test: Suggests a seven year period and to use the average earnings for the period to be used. This period can exclude any clearly abnormal years. Use for example zero for deficit years, instead of including a negative number. The minimum must also be met in the year immediately preceding the date of investment.

   Attention should also be paid to trend, minimum and current earnings but no definite hard and fast rules can be applied.

Chapter 10: Specific Standards for Bond Investment

6. The relation of the value of the property to the funded debt: The soundness of the typical bond investment depends upon the ability of the obligor corporation to take care of its debts, rather than upon the value of the property on which the bonds have a lien. There are, however, various special types of obligations, the safety of which is in great measure dependent upon the assets securing them, as distinguished from the going-concern value of the enterprise as a whole. The most important of this type is the real estate bond. The value of the pledged land and buildings are of paramount importance, but these values are not something distinct from the success of the enterprise but are rather identical therewith.

   - In the field of dwellings, offices and stores, the property values and rental values go hand in hand. In this sense it is largely immaterial whether the lender views

mortgaged property of this kind as something with salable value or as something with an earning power, the equivalent of a going concern.

- Specialized buildings such as hotel, garage, club, hospital, church, factory loses the quality of rapid disposability and its value becomes bound up with the success of the particular enterprise for whose use it was originally intended. Hence, mortgage bonds on such structures are not actually real estate bonds in the accepted sense, but rather loans extended to a business and consequently their safety must be judged by all the stringent tests of an industrial concern.
- Values based on inflated appraisals of land and property or excessive construction costs must be taken into consideration.

Chapter 11: Specific Standards for Bond Investment

7. The relation of stock capitalization to the funded debt: Graham suggests that this measure might not be very useful in practice as book valuations of fixed assets are highly unreliable indications of the safety of the bond. The main concern of the investor should be to ensure that the business is worth a great deal more than it owes. Since the worth of the business is tied to the earning power, he suggests an additional measure to reduce reliance on earnings as a measure of safety for bonds. He suggests using market value of capital stock to funded debt. Market value of stock issues is generally recognized as a better index of the fair going value of a business than is afforded by the balance sheet figures or even the ordinary appraisal. He is careful to note that the use of stock prices is for the restricted purpose of only ascertaining whether or not a substantial equity exists behind the bond issue.
    - The utility of market price test in extreme cases is unquestionable. The presence of a stock equity with market value many times as large as the total debt carries a strong assurance of the safety of the bond issue and conversely, an exceedingly small stock equity at market prices must call the soundness of the bond into serious question.
    - He suggests a minimum ratio of stock value to bonded debt (stock value ratio) of $1 of stock to $1 of bonds.
    - No bond investment should be made if it requires the assumption that the common stock is selling too low at the time. If the investor is right in that judgment of the stock value, it would certainly be more profitable to buy the stock than the bonds. If he is wrong as to the stock value, he runs great risk of having made a poor bond purchase.

Chapter 12: Special Factors in the Analysis of Railroad and Public Utility Bonds

Graham shows the factors that should be considered in a thorough study of bonds but notes that this is not consistent with a high grade bond investment. The selection of fixed value investments should be a relatively simple approach.

The investor must make certain by quantitative tests that the income has been amply above the interest charges and that the current value of the business is well in excess of its debts. In

addition, he must be satisfied in his own judgment that the character of the enterprise is such as to promise continued success in the future, or more accurately speaking, to make failure a highly unlikely occurrence. These tests and this expression of judgment should not require a highly elaborate technique of analysis.

If the investor in railroad bonds must weigh such factors as a favorable trainload trend as against a poor diversification of traffic handled, he is called upon to exercise penetration and skill out of all proportion to the reward offered, viz., a fixed income return of from 2.75% to 4.5%. He would certainly be better advised to buy United States government securities, which yield a lower return but are safe beyond question, or else to let one of the large savings banks invest his money for him with the aid of its extensive statistical staff.

Recommended Procedure: The complexities associated with railroad bond analysis have arisen naturally—but in our view, rather illogically — from the wealth of data available for study. The fact that a mass of figures is obtainable does not mean that it is necessary, or even advantageous, to dissect them. We recommend that the buyer of high-grade railroad bonds confine his quantitative study to the coverage of fixed charges (with due attention to the trend of earnings and the adequacy of maintenance expenditures) and to the amount of the stock equity. If he desires to be particularly careful, he will probably be better advised to increase his minimum requirements on these two points, rather than to extend his statistical tests to numerous other features of the annual reports.

Graham adds that such elaborate analyses may at times be of real value to the purchaser of speculative railroad bonds or stocks, as aids to his judgment of what the future will bring. But the whole raison d'être of fixed-value investment is opposed to any primary reliance upon surmises as to the future, since the field for exercising such judgment must logically be among those issues which offer possibilities of gain as a reward for being right, commensurate with the penalties attached to being wrong.

Chapter 13: Other Special Factors in Bond Analysis

Graham suggests that the current asset position be given careful attention for industrial enterprises as it has an important bearing on the financial strength. In examining the current asset situation, the investor should satisfy himself on three counts:

a) The cash holdings are ample.

b) The ratio of current assets to current liabilities is a strong one.

c) The working capital bears a suitable proportion to the funded debt.

Chapter 14: The Theory of Preferred Stocks

The typical preferred stock represents an unattractive form of investment. On the one hand, its principal value and income return are both limited; on the other hand, the owner has no fixed, enforceable claim to payment on either principal or income. Preferred stocks combine the limitations of creditorship (bonds) with the hazards of partnership (common stocks).

The essential difference between preferred stocks and bonds is that payment of preferred dividends is entirely discretionary with the directors, whereas payment of bond interest is compulsory. The preferred stockholders are subject to the danger of interruption of dividend payments under conditions which would not seriously threaten the payment of bond interest.

Qualification of Grade Preferred Stocks: It must meet all the minimum requirements of a safe bond. It must exceed these requirements by a certain added margin to offset the discretionary feature in payment of dividends. The stipulation of inherent stability in the business itself must be more stringent than in the case of a bond investment.

Chapter 15: Technique of Selecting Preferred Stocks for Investment

When a company has both bonds and preferred stock the preferred stock can be safe enough only if the bonds are much safer than necessary. Conversely, if the bonds are only just safe enough, the preferred stock cannot be sound.

The right calculation to assess the preferred stock is the number of times fixed and preferred dividend charges are earned. (Earnings before Interest Changes and before Preferred Dividends)/(Interest Changes + Preferred Dividends)

Chief objection to the noncumulative provision is that it permits the directors to withhold dividends even in good years, when they are amply earned, the money thus saved inuring to the benefit of the common stockholders. Experience shows that noncumulative dividends are seldom paid unless they are necessitated by the desire to declare dividends on the common.

Chapter 16: Income Bonds and Guaranteed Securities

Income Bonds: Income bonds have a definite but long maturity so the right of repayment is not likely to be of practical importance in the typical case. The technique of analyzing the income bond is same as the preferred stock.

Guaranteed Securities: No special investment quality attaches to the guaranteed issues as such. The value of any guaranty depends strictly upon the financial condition of the guarantor.

Chapter 17: Guaranteed Securities

This covers guarantees of two different types: First, given by a corporation engaged in sale of mortgages; Second, guaranty given by an independent surety company which assumes the contingent liability in return for a fee.

Graham notes that these guarantees will have the best chance of success if

a) The mortgage loads are conservatively made in the first instance.

b) The guaranty or surety company is large, well managed, independent of the agency selling the mortgages, and has a diversification of business in fields other than real estate.

c) Economic conditions are not undergoing fluctuations of abnormal intensity.

All obligations equivalent to bond interest should be included with a company’s interest charges when calculating the coverage for its bond issues.

Chapter 18: Protective Covenants and Remedies of Senior Security Holders

There has been a tendency for securities of companies in receivership to sell below their fair value in the aggregate; and also a tendency for illogical relationships to be established between the price of a bond issue in default and the price of the junior stock issues.

Chapter 19: Protective Covenants

Graham covers the various features included in bond covenants to protect bond holders. These include minimum working capital requirements, safeguards against creation of additional amount of the same issue, etc.

Chapter 20: Preferred Stock Protective Provisions. Maintenance of Junior Capital

Graham covers the various provisions that need to be included to protect preferred stock holders. He provides several examples of abuses during the 1930s and recommends provisions to address this issue.

Chapter 21: Supervision of Investment Holdings

Prior to the 1920-22 depression a sound investment is one that could be bought and forgotten except on coupon or dividend dates. Hence, a periodic examination of holdings is necessary but this might pose a serious problem for the fixed income investor. Since a large effort is required to gain a small overall advantage of about 1% in yield over US Government bonds while still being exposed to loss, a plausible argument can be made against advisability of fixed value investments in general. Graham suggests three possible approaches to deal with this:

a) US Savings Bonds or Treasury Bonds – at the time the only sensible alternative.

b) Speculative operations – suggests this is likely to prove disastrous.

c) Search for exceptional combination of safety of principal with a chance for substantial profit – a suitable field but dangerous objective for untrained investor, since, he can be readily persuaded that safety exists where there is only promise.

The investor should not be his own sole consultant unless he has training and experience sufficient to quality him to advise others professionally. In most cases he should at least supplement his own judgment by conference with others.

Part III: Senior Securities with Speculative Features

This part deals with securities of Group (ii), speculative bonds and preferred stocks. Chapter's 22-25 deal with Group (ii-a), those which are speculative because they possess a conversion or similar privilege which makes possible substantial variations in market price. Chapter 26 deals with Group (ii-b), which are speculative because of inadequate safety.

Chapter 22: Privileged Issues

In addition to enjoying a prior claim for fixed amount of principal and income, a bond or preferred stock may also be given the right to share in benefits accruing to the common stock. These privileges are of three kinds:

a) Convertible – conferring the right to exchange the senior issue for common stock.

b) Participating – additional income may be paid to senior security holder, usually based upon the amount of common dividends declared.

c) Subscription – holders of bond or preferred stock may purchase common shares, at prices, amounts and during periods stipulated.

These issues must be considered very attractive in form, since they permit the combination of maximum safety with the chance of unlimited appreciation in value. Despite this impressive argument in favor of privileged senior issues as a form of investment, actual experience with this class has not been generally satisfactory. This discrepancy between promise and performance is due to two reasons. The first reason is that only a small fraction of the privileged issues have actually met the rigorous requirements of a sound investment.

The second reason is related to the conditions under which profit may accrue from the conversion privilege. After a privileged issue has advanced with common stock, its price soon becomes dependent in both directions upon changes in the stock quotation, and to that extent the continued holding of the senior issue becomes a speculative operation.

Example: A high grade 3.5% bond trading at par, convertible into two shares of common for each $100 bond (convertible into common at 50). Common is selling at 45 when the bond is bought at par.

- First stage: stock declines to 35, bond may remain close to par – here the convertible bond displays its advantage over common stock. Now if common stock advances to 55, the bond will probably rise to 115 – convertible displaying the speculative possibility.
- Second stage: stock advances to 65. The convertible bond is now about 130. At this point the original purchaser is faced with a problem. The future price of the bond depends entirely upon the course of the common stock. In order to seek a larger profit he must risk the loss of the profit in hand, which in fact constitutes a substantial part of the present market value of the security. If he elects to hold the issue, he places himself to a considerable degree in the position of the stockholders, and this similarity increases rapidly as the price advances further.

The unlimited profit possibilities of a privileged issue are thus in an important sense illusory. They must be identified not with the ownership of a bond or preferred stock but with the assumption of a common stock holder's position – which any holder of a non-convertible may

effect by exchanging his bond for a stock. Practically, the range of profit possibilities for a convertible issue, while still maintaining the advantage of an investment holding, must usually be limited to somewhere between 25 and 35% of its face value. For this reason original purchasers of privileged issues do not ordinarily hold them for more than a small fraction of the maximum market gains possible and consequently do not realize these very large profits. Thus profits taken may not offset the losses occasioned by unsound commitments in this field.

These objections must considerably temper any enthusiasm for privileged senior issues as a class, but they by no means destroy their inherent advantages not the possibilities of exploiting them with reasonable success.

Principle for Investing in Convertible Security: A privileged senior issue, selling close to or above face value, must meet the requirements either of a straight fixed value investment or a straight common stock speculation, and it must be bought with one or the other qualification clearly in view.

- Two approaches to purchasing a convertible security. It may be bought as a sound investment with an incidental chance of profit through an enhancement of principal or it may be bought primarily as an attractive form of speculation in the common stock.
- When an intermediate stand is taken, the result is usually confusion, clouded thinking, and self deception. The investor who relaxes his safety requirements to obtain a profit sharing privilege is frequently not prepared, financially or mentally, for the inevitable loss if fortune should frown on the venture.

Rules for Sale or Retention after a Convertible Security is Bought: Convertibles bought primarily as a form of commitment in the common stock may be held for a larger profit than those acquired from the investment standpoint. If a bond of the former class advances from 100 to 150, the large premium need not in itself be a controlling reason for selling out; the owner must be guided rather by his views as to whether or not the common has advanced enough to justify taking his profits. But when the purchase is made primarily as a safe bond investment, then the limitation on the amount of profit that can conservatively be waited for comes directly into play. The conservative buyer of convertibles will not ordinarily hold them for more than 25 to 35% advance. This means the really successful investment operation in the convertible field does not cover a long period of time. Hence such issues should be bought with the possibility of long term holding in mind but with the hope that the potential profit will be realized fairly soon.

- In the typical case, a convertible bond should not be converted by the investor. It should be either held or sold.
- The market behavior of the issue, once it has entered the speculative range, is no more the investor’s affair than the price gyrations of any speculative stock about which he knows nothing.

A continued policy of investment in privileged issues would, under favorable conditions, require rather frequent taking of profits and replacement by new securities not selling at an excessive premium. It is not likely that satisfactory opportunities of this kind will be continuously available or that the investor would have the means of locating all those that are at hand.

Chapter 23: Technical Characteristics of Privileged Senior Securities

This chapter provides a basic description of the characteristics of convertible securities. The author points out that this is done as this material is not available in the text books of that time.

Chapter 24: Technical Aspects of Convertible Issues

Graham goes into additional aspects of convertible issues, terms protecting against dilution, progressively higher conversion prices as times goes on, conversions into preferred stock, conversions into other bonds and conversions at the option of the company.

Chapter 25: Senior Securities with Warrants, Participating Issues, Switching and Hedging

It is sometimes possible in convertibles that an absolutely dependable conclusion can be arrived at by security analysis. Thus it makes for a scientific application of security analysis in some situations.

When there is a senior issue convertible into common, the concentration of speculative interest in the latter often results in establishment of a price level closely equivalent to the price of the senior issue, to which the public pays little attention. A convertible issue selling at parity with the common is preferable thereto, except when its price is so far above an investment level that it has become merely a form of commitment in the common stock. It is generally worthwhile to pay some moderate premium in order to obtain the superior safety of the senior issue. This is certainly true when the convertible yields a higher income return than the common, and it holds good to some extent even if the income yield is lower.

Thus as a practical rule, holders of common stocks who wish to retain their interest in the company should always exchange into a convertible issue of the enterprise, whenever it sells both at an investment level on its own account and also close to parity on a conversion basis.

Graham has a few suggestions on hedging:

1. Ability to borrow stock sold and to maintain short position indefinitely.
2. Original cost of establishing position, including spread and commissions.
3. Cost of maintaining the position, including interest charges on long holdings, dividends on short stock, possible premiums payable for borrowing stock, and stamp taxes in connection with reborrowing of stock – less offsets in the form of dividends or interest receivable on long securities and possible interest credit on short position.
4. Amount of profit at which operation will probably be closed out if opportunity offers. Relationship between this maximum profit and probable maximum loss, consisting of (2) plus (3).

   The profit potential to be taken into account is not the maximum figure that might conceivably be reached but merely the highest figure for which the operator is likely to wait before he closes out his position.

Hedging operation: One potential approach consists of purchasing a convertible issue and selling only part of the related common shares, say, one-half of the amount receivable upon

conversion. On this basis a profit may be realized in the event of either a substantial advance or a substantial decline in the common stock. This is probably the most scientific method of hedging, since it requires no opinion as to the future course of prices. An ideal situation of this kind should meet the following two requirements:

i. A strongly entrenched senior issue that can be relied on to maintain in price close to par even if the common should drop precipitately. A good convertible bond, maturing in a short time, is an ideal type for this purpose.

ii. A common stock in which the speculative interest is large and that therefore subject to wide fluctuations in either direction.

Chapter 26: Senior Securities of Questionable Safety

- Graham suggests it would be preferable to view low priced bonds as essentially common stocks. A 4% bond selling at 35 would have a maximum possible price appreciation of 200%. The average common stock cannot be held for a greater profit than this without a dangerous surrender to bull market psychology. In viewing a bond as common stock, the investor will better appreciate the risk involved and perform a more intensive examination of the company.
- This approach would be distinctly unfavorable to the purchase of slightly substandard bonds selling at moderate discounts from par. These together with high-coupon bonds of second grade, belong to the category of "business men's investments" which are not suitable for investment.
- Thus bonds trading under 70 would be considered for speculation (providing an opportunity for a profit of at least 50%) and bonds trading above would be ignored. In making such a commitment, the investor should perform the same analysis as for common stocks.
- A large working capital is much more advantageous to the senior securities than to the common stock. Not only does it make possible the continuance of interest or preferred dividend payments, but it has an important bearing also on the retirement of the principal at maturity.

Part IV: Theory of Common Stock Investment. The Dividend Factor

Chapter 27: The Theory of Common Stock Investment

Graham addresses the utility of any analysis of stocks

- To what extent is common stock analysis a valid and truly valuable exercise, and to what extent is it an empty but indispensable ceremony attending the wagering of money on the future of business and of the stock market?
- As far as the typical common stock is concerned – an issue picked at random from the list – an analysis, however elaborate, is unlikely to yield a dependable conclusion as to its attractiveness or its real value. But in individual cases, the exhibit may be such as to permit reasonably confident conclusions to be drawn from the processes of analysis.
- It would follow that analysis is of positive or scientific value only in the case of the exceptional common stock, and that for common stocks in general it must be regarded either as a somewhat questionable aid to speculative judgment or as a highly illusory method of aiming at values that defy calculation and that must somehow be calculated none the less.

Prewar conception of investment in common stocks

- Based primarily on meeting three requirements (1) a suitable and established dividend return (2) a stable and adequate earnings record, and (3) a satisfactory backing of tangible assets.
- The function of analysis was primarily to search for elements of weakness in the above requirements and in addition offered the best chance of future enhancement. The chief emphasis in the analysis is the relative showing for past years, in particular the average earnings in relation to price and the stability and trend of earnings. Only to a lesser extent did the analyst try to look into the future to select industries or companies that were likely to show the most rapid growth.
- When the prime emphasis was upon what was expected of the future, instead of what has been accomplished in the past, it was considered as a speculation. The future was uncertain, therefore speculative; the past was known, therefore the source of safety.
- The technique of investing in stocks resembled closely investing in bonds. Both wanted a stable business and having adequate margin of earnings over dividend requirements. However, the common stock investor had to content himself with lower margin of safety then he would demand of a bond, a disadvantage offset by larger dividend yield on the stock (6% standard for good common stock, 4.5% for high grade bond), by chance of an increased dividend yield if business continued to prosper and – generally of least importance in his eyes – by the possibility of stock price increase.
- Buying stocks is viewed as taking a share in a business. The typical stock investor is a business man, and it seemed sensible to him to value any corporate enterprise in much the same manner as he would value his own business. This meant that he gave at least as much attention to the asset values behind the shares as he did to their earnings record. A

man contemplating the purchase of a partnership or stock interest in a private undertaking will always start with the value of that interest as shown "on the books" i.e. the balance sheet, and will then consider whether or not the record and prospects are good enough to make such a commitment attractive. An interest in a private business may of course be sold for more or less than its proportionate asset value; but the book value is still invariably the starting point of the calculation, and the deal is finally made and viewed in terms of the premium or discount from book value involved. One of the functions of security analysis here is to discover if the fixed assets as stated on the balance sheet fairly represents reasonable worth of the properties.

New era theory

- "The value of a common stock depends entirely upon what it will earn in the future." This dictum resulted in three corollaries
    1. Dividend rate should have slight bearing upon value
    2. Since no relationship apparently existed between assets and earning power, the asset value was entirely devoid of importance
    3. The past earnings were significant only to the extent that they indicated what changes in the earnings were likely to take place in the future.
- Causes for moving to new era theory
    1. One reason was that the records of the past were proving an undependable guide to investment. The tempo of economic change has been speeded up to such a degree that the fact of being long established has ceased to be, as once it was, a warranty of stability.
    2. Due to this instability the three fold basis of stock investment proved inadequate. Past earnings and dividends could no longer be considered, in themselves, an index of future earnings and dividends. Furthermore, these future earnings showed no tendency whatever to be controlled by the amount of the actual investment in the business – the asset values – but instead depended upon a favorable industrial position and upon capable or fortunate managerial policies. In many cases of receivership, the current assets dwindled, and the fixed assets proved almost worthless. Because of this absence of any connection between assets and realizable values in bankruptcy, less and less attention came to be paid to book value.
- Consequences of new era theory
    1. Abolished the fundamental distinction between investment and speculation. New era investment equivalent to prewar speculation. New era investment was simply old style speculation confined to common stocks with satisfactory trend of earnings.
    2. Stocks regarded as attractive irrespective of their prices. A corollary of this principle was that making money in the stock market was not the easiest thing in the world. It is only necessary to buy good stocks, regardless of price, and then to let nature take her upward course.
- Logical validity of new era theory

1. Common stocks were shown to have a tendency to increase in value with the years, for the simple reason that they earned more than they paid out in dividends and thus the reinvested earnings added to their worth. A company would earn an average of 9%, pay 6% in dividends and add 3% in surplus. Theoretically this should increase the book value at an annual rate of 3% compounded.
2. The attractiveness of common stocks for the long pull thus lay essentially in the fact that they earned more than the bond interest rate upon their cost. This would be true, typically, of a stock earning $10 and selling at 100. But as soon as the price advanced to a much higher price in relation to earnings, this advantage disappeared, and with it disappeared the entire theoretical basis for investment purchases of common stock.
3. Average vs. Trend of earnings. Average earnings ceased to be a dependable measure of future earnings because of greater instability of the typical business. But it does not follow that the trend of earnings must therefore be more dependable guide than the average, and even if it were more dependable, it would not necessarily provide a safe basis, entirely by itself, for investment. There are several reasons why we cannot be sure that a trend of profits shown in the past will continue in the future. In the broad economic sense, there is the law of diminishing returns and of increasing competition which must finally flatten out any sharply upward curve of growth. There is also the flow and ebb of the business cycle, from which the particular danger arises that the earnings curve will look most impressive on the very eve of a serious setback.

Chapter 28: Newer Canons of Common Stock Investment

The older approach appears to have been vitiated by the instability of the typical business and new era approach was certain to end in an appalling debacle. An acceptable approach towards common stock investment is proposed as needing the following elements:

i. Investment is conceived as a group operation, in which diversification of risk is depended upon to yield a relatively favorable average result.

ii. The individual issues are selected by means of qualitative and quantitative tests corresponding to those employed in the choice of fixed value investments.

iii. A greater effort is made, then in the case of bond selection, to determine the future outlook of the issues considered.

Three general approaches are proposed that meet the above conditions.

1. Secular expansion as basis: The approach here is to buy a carefully selected diversified group of common stocks and purchased at reasonable prices. This approach can be characterized as sound investment policy as long as the following three conditions are met:
   a. National wealth and earnings power will increase.
   b. Such increase will reflect itself in the increased resources and profits of important corporations.
   c. That such increase will in the main take place through the normal process of investment of new capital and reinvestment of undistributed earnings.

2. Individual growth as basis of selection: This approach would be attractive to those who reject the belief of a general secular expansion. This stresses the element of selectivity and is based on the premise that certain favored companies may be relied on to grow steadily. Hence such companies, when located, can be bought with confidence as long-term investments.
    - An investor who can successfully identify such "growth companies' when their shares are available at reasonable prices is certain to do superlatively well with his capital. Nor can it be denied that there have been investors capable of making such selections with a high degree of accuracy. But the real question is whether or not all careful and intelligent investors can follow this policy with fair success. This problem falls into three parts
        a. What are growth companies? These have been defined as those companies whose earnings move forward from cycle to cycle. But most company's earnings do move forward from cycle to cycle. Only in the cycle of 1930-36 did many companies fail to do so and it does not seem that using one cycle is a reliable way to separate growth stocks.
        b. Can the investor identify them? If an investor chooses newer companies with short record of expansion, he runs the risk of being deceived by temporary prosperity; and if he chooses enterprises that have advanced through several business cycles, he may find this apparent strength to be the harbinger of coming weakness. Thus identification of a growth stock is not simple and considerable supplement of special investigation and of business judgment is needed.
        c. Does the price discount potential growth? This is the most difficult part. Once an investor pays a substantial amount for the growth factor, he is inevitably assuming certain kinds of risk; viz., that the growth will be less than he anticipates and that for a considerable period the market will value the stock less optimistically that he does.
    - May such purchases be described as investment commitments? Yes, provided that factors are present: first, that the elements affecting the future are examined with real care and a wholesome skepticism, rather than accepted quickly via some easy generalization; second, that the price paid be not substantially different from what a prudent business man would be willing to pay for a similar opportunity presented to him to invest in a private undertaking over which he could exercise control.
    - Graham rejects the argument that higher prices would be justified than for a private business because of greater marketability. He suggests that the greater marketability is offset by the lack to control in a public enterprise. In any case, he suggests that in the event of a premium of 20% as the maximum.
3. Selection based on Margin of Safety Principle: Here an investment is made if a stock is worth more than he pays for it and if he is reasonably optimistic as to the company's future. The margin of safety resides in the discount at which the stock is selling below its minimum intrinsic value, as measured by the analyst. Two approaches are possible
    a. Buy at times when the general market is low, measured by quantitative standards of value. The purchases would be confined to representative and fairly active issues.

- One approach would be to select a diversified list of leading industrial common stocks; Determine a base or "normal" value for the group by capitalizing their average earnings at some suitable figure, related to the going long term interest rate; Determining a buying point at some percentage below this normal value and a selling point above it.
- The difficulty with this approach are: (1) Although the general pattern of the market behavior may be properly anticipated, the specific buying and selling points may turn out to have been badly chosen, and the operator may miss his opportunity at one extreme or the other. (2) There is always a chance that the character of the market's behavior may change significantly, so that a scheme of operation that would have worked well in the past will cease to be practicable. (3) The method itself requires a considerable amount of human fortitude.
- This method has a good deal to commend it to those temperamentally qualified to follow it.

b. Discover undervalued individual common stocks, which presumably are available when the general market is not particularly low.

- It is rare that a common stock will appear satisfactory from every qualitative angle and at the same time will be found to be selling at a low price by such quantitative standards as earnings, dividends and assets.
- Of more practical importance is the question whether or not investment can be successfully carried on in common stocks that appear cheap from the quantitative angle and that – upon study – seem to have average prospects for the future. Securities of this type can be found in reasonable abundance, as a result of the stock market's obsession with companies considered to have unusually good prospects of growth. Because of this emphasis on growth factor, quite a number of enterprises that are long established, well financed, important in the industries and presumably destined to stay in business and make profits indefinitely in the future, but that have no speculative or growth appeal, tend to be discriminated against by the stock market – especially in years of subnormal profits – and to sell for considerably less than the business would be worth to a private owner.

Chapter 29: The Dividend Factor in Common Stock Analysis

- A natural classification of the elements entering into the valuation of a common stock would be under the three headings
    1. The dividend rate and record
    2. Income account factors (earnings power)
    3. Balance sheet factors (asset value)
- The dividend rate is a simple fact and requires no analysis, but its exact significance is exceedingly difficult to appraise. From one point of view the dividend rate is all important,

but from another and equally valid standpoint it must be considered an accidental and minor factor.

- In the years until 1925, the price paid for a common stock would be determined chiefly by the amount of dividend. A common stock investor sought to place himself as nearly as possible in the position of an investor in a bond or a preferred stock. He aimed primarily at a steady income return, which in general would be both somewhat larger and somewhat less certain than that provided by good senior securities. Even if one company had steady earnings and another company had irregular earnings, this had little impact on the price paid which is dominated by the dividend rate.
- Graham questions the established principle of corporate management which subordinates the current dividend to the future welfare of the company and its shareholders. It is considered proper managerial policy to withhold current earnings from stockholders to either strengthen the financial position or to increase productive capacity. The typical shareholder would most certainly prefer to have his dividend today and let tomorrow take care of itself.
- Graham questions the assumptions of the dividend policy
    1. It is advantageous to the shareholders to leave a substantial part of annual earnings in the business.
        - If a business pays out only a small part of the earnings in dividends, the value of the stock should increase over a period of years, but it is by no means certain that this increase will compensate the stockholders for the dividends withheld from them, particularly if interest on these amounts is compounded.
        - An inductive study would undoubtedly show that the earning power of corporations does not in general expand proportionately with increases in accumulated surplus (retained earnings).
    2. It is desirable to maintain steady dividend rate in the face of fluctuations in profits.
        - Stability is usually accomplished by paying out a small part of the average earnings. The question that arises is if the shareholders might not prefer a much larger aggregate dividend, even with some irregularity.

    The main objection to the above is that stockholders receive both currently and ultimately too low a return in relation to the earnings of their property and that the saving up of profits for a rainy day often fails to safeguard even the moderate dividend rate when the rainy day actually arrives.

    Gives the example of US Steel that earned a profit of $2.344 billion over the period 1901-1930 and retained $1.25 billon of it. Yet, a small loss over a 1.5 year period in 1931 was sufficient to outweigh the beneficial influence of 30 years of practically continuous reinvestment of profits.

    Assuming that the reported earnings were actually available for distribution, then stockholders in general would certainly fare better in dollars and cents if they drew out practically all of these earnings in dividends.

- Graham questions the accepted notion that the determination of dividend polices is entirely a managerial function, in the same way as the general running of the business. This is because the board of directors consists largely of executive officers and their friends. The officers want to retain as much earnings as possible to simplify their financial problems, expand business for personal aggrandizement to secure higher salaries.
- Graham suggests European companies policy of paying out practically all earnings and any capital for expansion purposes be provided by sale of additional stock.
- Experience would confirm the established verdict of the stock market that a dollar of earnings is worth more to the stockholder if paid him in dividends than when carried to surplus (retained earnings).
- Graham suggests that if an investor makes a small concession in dividend yield below the standard, he is entitled to demand a more than corresponding increase in earning power above standard. So if a stock is paying 5% div yield and 7% earnings yield and another company paying 4.4% yield, then the investor should demand an earnings of yield of perhaps 8% to compensate.
- The dividend rate is seen to be important apart from earnings, not only because the investor naturally wants cash income from his capital but also because the earnings that are not paid out in dividends have a tendency to lose part of their effective value for the stockholder.
- The principle for dividends should be for the management to retain or reinvest earnings only with the specific approval of the stockholders. Such "earnings" as must be retained to protect the company's position are not true earnings at all. They should not be reported as profits but should be deducted in the income statement as necessary reserves, with an adequate explanation thereof. A compulsory surplus is an imaginary surplus.
- Summary
    - In some cases stockholder derive positive benefits from an ultraconservative dividend policy i.e. through much larger eventual earnings and dividends. In such instances the market's judgment proves to be wrong in penalizing the shares because of their small dividend.
    - Far more frequently, however, the stockholders derive much greater benefits from dividend payments than from additions to surplus. This happens because either (a) the reinvested profits fail to add proportionately to the earning power or (b) they are not true profits at all but reserves that had to be retained merely to protect the business. In this majority of the cases the market's disposition to emphasize the dividend and to ignore the additions to surplus turns out to be sound. A company earning $10 and paying $7 in dividends should increase the value of stock over a period of years. This may be true but at the same time the rate of increase in value may be substantially less than $3 per annum compounded.
    - The confusion of though arises from the fact that the stockholders votes in accordance with the first premise and invests on the basis of the second.

Chapter 30: Stock Dividends

In theory a large stock dividend gives the stockholder nothing that he did not own before. His two pieces of paper now represent the same ownership formerly expressed by one piece of paper. This reasoning led the United States Supreme Court to decide that stock dividends are not income and consequently not subject to income tax. In practice, however, a stock dividend may readily be given exceptional speculative importance. For stock speculation is largely a matter of A trying to decide what B, C and D are likely to think—with B, C and D trying to do the same. Hence a stock dividend, even if it has no real significance of any kind, can and does serve as a stimulus to that mutual attempt at taking advantage of each other which often lies at the bottom of speculators' activities.

Graham recommends the following as suitable dividend policies:

1. Withholding and reinvestment of a substantial part of the earnings must be clearly justified to the stockholders on the grounds of concrete benefits therefrom exceeding the value of the cash if paid to the stockholders. Such withholding should be specifically approved by the stockholders.
2. If retention of profits is in any sense a matter of necessity rather than choice, the stockholders should be advised of this fact, and the amounts involved should be designated as "reserves" instead of as "surplus profits."
3. Earnings voluntarily retained in the business should be capitalized in good part by the periodic issuance of additional stock, with current market value not exceeding such reinvested earnings. If the additional capital is subsequently found no longer to be needed in the business, it should be distributed to the shareholders against the retirement of the stock previously issued to represent it.

Part V: Analysis of the Income Account. The Earnings Factor in Common Stock Valuation

Chapter 31: Analysis of the Income Account

- Graham warns against exclusive dependence of valuing stocks on capitalized earning power. He acknowledges that there are sound reasons for using earnings power as opposed to net worth but warns that this subjects investment analysis to several added hazards. A business man does not appraise his own business solely on the basis of its recent operating results (earnings) without reference to its financial resources (asset value). Using earnings power as the sole basis for valuing stocks he is putting himself at several disadvantages
    1. He is using a new set of ideas alien to his everyday business experience.
    2. Instead of using a twofold test of value added by both earnings and assets, he is relying upon a single and therefore less dependable criterion.
    3. The earnings statements on which he relies exclusively are subject to more rapid and radical changes than those which occur in balance sheets. Hence an exaggerated degree of instability is introduced into his concept of stock values.
    4. Earnings statements are far more subject to misleading presentation and mistaken inferences than is the typical balance sheet when scrutinized by an investor of experience.
- The Wall-Street method of appraising value of stocks can be summarized by the formula Price = current earnings per share X quality coefficient; This results in "earnings per share" attaining a weight that is equivalent to the weight of all the factors taken together in determining value. The quality coefficient is itself largely determined by the earnings trend, which in turn is taken from the stated earnings over a period.
- The earnings per share on which the entire edifice of value has come to be built, are not only highly fluctuating but are also subject also in extraordinary degree to arbitrary determination and manipulation.
- Various devices by which per share earnings may be made to appear either larger or smaller:
    1. Allocation items to surplus instead of to income or vice versa
    2. Over or underestimating amortization and other reserve charges
    3. Varying the capital structure
    4. Using large capital funds not employed in the conduct of the business
- Graham cautions that a shrewd analyst could uncover the above but that care must be taken against overconfidence in the practical utility of his findings. It is always good to know the truth, but it may not always be wise to act upon it, particularly in Wall Street. And it must always be remembered that the truth that the analyst uncovers is first of all not the whole truth and, secondly, not the immutable truth. The result of his study is only a more nearly correct version of the past. His information may have lost its relevance by the

time he acquires it, or in any event by the time the market place is finally ready to respond to it.

Even allowing for these pitfalls, the securities analyst must devote thoroughgoing study to corporate income accounts. The broad study of income accounts may be classified under three headings:

1. The accounting aspect: What are the true earnings for the period studied?
2. The business aspect: What indications does the earnings carry as to the future earning power of the company?
3. Aspect of investment finance: What elements in the earnings exhibit must be taken into account, and what standards followed, in endeavoring to arrive at a reasonable valuation of the shares?

Accounting Aspect: True Earnings for the Period Studied

Accounting procedure allows considerable leeway to the management in the method of treatment of non-recurrent items – permitting management to decide whether to show these operations as part of the income or to report them as adjustment to surplus (shareholder equity). It is necessary for an analyst to restate and interpret the results as accounting principles allow considerable leeway.

To get the true earnings from accounting earnings, the audited statements require critical interpretation and adjustment, especially with respect to three important elements:

1. Non-recurrent profits and losses
    a) Profit or loss on sale of fixed assets: These clearly should be charged directly to shareholders equity.
    b) Profit or loss on sale of marketable securities: These are also of special character and must be separated from ordinary operating results and applied directly to shareholders equity. Reductions in the market value of securities should be considered as non-recurring in the same way as losses from the sale of such securities.

       Graham warns the small investor from investing in banking and insurance companies due to the dependence of their reported earnings upon fluctuations in securities prices. Since in these enterprises an increase in security value may be held to be part of the year's profits, there is an inevitable tendency to regard the gains made in good times as part of the "earning power" and to value the shares accordingly.
    c) Discount or premium on retirement of corporate obligations: A profit can be realized by corporations through the repurchase of their own senior securities at less than par value. The inclusion of such gains in current income is misleading because first, the gains are non-recurring and second, this is at best a questionable sort of profit, since it is made at the expense of the company's own securities holders.
    d) Proceeds of life insurance policies: Should be applied directly to shareholders equity.

e) Tax refunds and interest thereon: Should be applied directly to shareholders equity.

f) Gain or loss as result of litigation: Should be applied directly to shareholders equity.

Chapter 32: Extraordinary Losses and Other Special Items in the Income Account

g) Extraordinary write-downs of inventory: Inventory losses are directly related to the conduct of the business and all losses on inventories and receivables must be considered part of the operating results. To the extent that the results for the period are taken into account at all (as during the great depression), the losses on inventories must be taken into account as well.

h) Extraordinary write-downs of receivables: Graham cautions to watch out for excessive provision for losses being made in one year with the intention of benefitting future income accounts. This is essentially consists of taking sums out of surplus (or even capital) and then reporting these same sums as income.

i) Cost of maintaining non-operating properties: The analyst should consider idle-plan expense as belonging to a somewhat different category from ordinary charges against income. These expenses should be of a temporary and therefore non-recurring type. Presumably the management can terminate these losses at any time by disposing of or abandoning the property. If, for the time being, the company elects to spend money to carry these assets along in the expectation that future value will justify the outlay, it does not seem logical to consider these assets as equivalent to a permanent liability i.e. as a permanent drag upon the company's earning power, which makes the stock worth considerably less than it would be if these assets did not exist.

Deferred Charges: A business sometimes incurred expenses that may fairly be considered as applicable to a number of years following rather than to the single 12 month period in which the outlay was made. Under this heading might be included, organization expense (legal fees), moving expenses, development expenses (for new products, opening a mine), discount on obligations sold. Under approved accounting methods such costs are spread over an appropriate period of years. The amount involved is entered upon the balance sheet as deferred charge, which is written off by annual charges against earnings. Some companies write off such expense applicable to future years by a single charge against surplus. This is improper as it understates the operating expenses for a succeeding period of years.

Amortization of Bond Discount: Bonds are usually floated by corporations at a price to net the treasury less than par. The discount suffered is part of the cost of borrowing the money i.e. part of the interest burden, and it should be amortized over the life of the bond issue by an annual charge against earnings, included with the statement of interest paid. It was formerly considered conservative to write off such bond discounts by a single charge against surplus, in order not to show so intangible an item among the assets on the balance sheet. More recently this is being done to eliminate future annual deductions from earnings.

What the investor chiefly wants to learn from an annual report is the indicated earnings power under the given conditions i.e. what the company might be expected to earn year after year if the business conditions prevailing during the period where to continue unchanged. On the other hand, all these extraordinary items enter into the calculation of earning power as actually shown over a period of years in the past. Ordinarily the amounts involved in many of these transactions are not large enough to warrant the analyst's making an issue of them. Security analysis is a severely practical activity, and it must not linger over matters that are not likely to affect the ultimate judgment.

Chapter 33: Misleading Artifices in the Income Account. Earnings of Subsidiaries

Graham gives an example of using the balance sheet to detect a misleading income statement to illustrate the important of relating an analysis of income statements to an examination of the corresponding balance sheets. In addition, he suggests a further check upon the reliability of the published earnings statements by the amount of federal income tax accrued. The taxable profit can be calculated fairly readily from the income-tax accrual and this profit compared in turn with the earnings reported to stockholders. The two figures should not necessarily be the same, since the intricacies of the tax laws may give rise to a number of divergences. He suggests not to make any effort to reconcile the amounts absolutely but only that wide differences be noted and made subject to further inquiry.

Graham also cautions on including leasehold appreciation in the current earnings. Leaseholds are essentially as much a liability as they are an asset. They are an obligation to pay rent for premises occupied. If leaseholds had really increased in value, the effect should be visible in larger earnings realized from these favorable locations. Any other recognition given this enhancement would mean counting the same value twice. Whatever value is given to leaseholds must be amortized over the life of the lease. If leasehold values had really appreciated and the balance sheet reflects the increased value, then the subsequent operating profits would be reduced by the increased amortization charge.

Graham recommends that when an enterprise pursues accounting policies, all its securities be shunned by the investor, no matter how safe or attractive some of them may appear. Investors confronted with one manipulation might have reasoned that the issue was still perfectly sound, because when the overstatement of earnings was corrected, the margin of safety remained more than ample. Such reasoning is fallacious. You cannot make a quantitative deduction to allow for an unscrupulous management; the only way to deal with such situations is to avoid them.

2. Operations of subsidiaries or affiliates: The analyst must endeavor to adjust the reported earnings so as to reflect as accurately as possible the company's interest in results of controlled or affiliated companies. In most cases, consolidated reports are made, so such adjustments are unnecessary. But there can be cases where they fail to reflect any part of the profits or losses of important subsidiaries or they include as income dividends from subsidiaries that are substantially less or greater than the current earnings of the controlled enterprises.

   The analyst should adjust reported earnings for the results of non-consolidated affiliates, if this has not already been done in the income account and if the amounts involved are

significant. The criterion here is not the technical question of control but the importance of the holdings.

Subsidiary losses: Graham poses the question if the loss of a subsidiary necessarily a direct offset against the parent company's earnings? Why should a company be worth less because it owns something? Could it not at any time put an end to the loss by selling, liquidating or even abandoning the subsidiary? Hence, if good management is assumed, must we not also assume that the subsidiary losses are at most temporary and therefore to be regarded as non-recurring items rather than as deductions from normal earnings?

There is no one, simple answer to the questions raised. If the subsidiary could be wound up without an adverse effect upon the rest of the business, it would be logical to view such losses as temporary. But if there are important business relations between the parent company and the subsidiary e.g. if the latter affords an outlet for goods or supplies cheap materials or absorbs an important share of the overhead, then the termination of its losses is not so simple a matter. It may turn out, upon further analysis, that all or a good part of the subsidiary's loss is a necessary factor in the parent company's profit.

From the standpoint of proper accounting, that as long as a company continues to control an unprofitable division, its losses must be shown as deductions from its other earnings. The analyst must decide what the chances are of terminating the losses in the future, and view the current price of the stock accordingly.

Chapter 34: The Relation of Depreciation and Similar Charges to Earning Power

3. Reserves: The analyst must give critical attention to the matter of reserves for depreciation and amortization, and reserves for future losses and other contingencies. These reserves are subject in good part to arbitrary determination by the management.

   Depreciation represents the estimated shrinkage in the value of the fixed or capital assets, due to wearing out, to using up or to their approaching extinction for whatever cause. The important charges of this character may be classified as follows

   a) Depreciation, replacements, renewals or retirements.
   b) Depletion or exhaustion
   c) Amortization of leaseholds, leasehold improvements, licenses, etc.
   d) Amortization of patents.

   The accounting theory that governs depreciation charges is simple enough. If a capital asset has a limited life, provision must be made to write off the cost of that asset by charges against earnings distributed over the period of its life. But there are several complications: First, accounting rules themselves may permit a value other than cost as the base for the amortization charge; Second, many companies fail to follow accepted accounting practice in stating their depreciation deduction in the income account; Third, there are occasions when an allowance that may be justified from an accounting standpoint will fail to meet the situation properly from an investment standpoint.

   <u>Depreciation</u>

Depreciation Base: There is support in accounting circles for the theory that the function of the depreciation allowance is to provide for the replacement of the asset at the end of its life rather than merely to write off its cost. If this idea is followed, the current or expected future replacement cost would be the basis for the depreciation charge, and it would vary not only with the value of the identical asset but also with changes in the character of the item that is expected to replace the one worn out.

Two typical misuses of depreciation base accounting by companies: First, marking down of fixed assets, not in the interests of conservatism but with the precisely opposite intent of making a better earnings exhibit. Second, marking up fixed assets yet failing to correspondingly increase their depreciation charged against the income account. In effect, companies were attempting to get the benefit of the higher valuation in their balance sheet without accepting the burden of consequently higher depreciation charges against earnings. Companies should not use one set of values for its balance sheet and another for its income account.

Depreciation Rate: Most companies use the standard depreciation rates. When the analyst knows that a company's depreciation policy differs from the standard, there is a special reason to check the adequacy of the allowance. Comparison with a single company in the same field may yield significant results. Consider using the ratio of depreciation to property account and ratio of depreciation to sales to compare the two companies or to a single company over many years. E.g., National Biscuit Company, prior to 1922 was constantly adding to the number of its factories but its property account failed to show any appreciable increase. In effect, the capital investment in additional plants were actually being charged against the profits and real profits were much larger than reported.

Depletion (Amortization charges of oil and mining companies)

In addition to depreciation in the ordinary sense – which they usually calculate in the same way as do other companies, Oil and Mining companies must allow for depletion of their ore or oil reserves. Depletion represents the using up of capital assets by turning them into products for sale. As the reserves of these products are exhausted, their value must gradually be written off through charges against earnings.

Mining Companies – Depletion, Development expense

Oil Companies – Depletion, Intangible drilling costs, Unproductive leases: In the oil industry depletion charges are more closely related to the actual cost of doing business than in the case of mining companies. Mining companies ordinarily invest in a single property or group of properties, the cost of which is then written off over a fairly long period of years. The typical oil company normally spends substantial sums each year on new leases and new wells. These additional holdings are needed to make up for the shrinkage of reserves through production. The depletion charge corresponds in some measure, therefore, to a current outlay for the purpose of maintaining reserves and production.

Depletion of oil and gas reserves is based upon the cost of the leases. Unprofitable leases must be written off as some will prove totally valueless and must be charged against the revenue from the productive leases. Intangible drilling costs are written off at one time as equivalent to an operating expense or amortized over the life of the well.

Suggested Approach:

Depreciation on tangible assets – Always at well established rates, applied to cost, or less than cost only if the facts clearly justify the write-down.

Intangible drilling costs – Capitalizing the costs and then writing them off as oil is produced is preferable both for comparative purposes and to supply a fair reflection of current earnings.

Property retirement and abandoned leases – Loss on property retired (in excess of depreciation already accrued) should be charged against the year's earnings, rather than against surplus as property retirements are likely to be a normal and recurrent factor.

Depletion of oil reserves – Should allow for depletion on the basis at which the oil reserves are valued in the market.

Amortization of leaseholds (Other types of amortization of capital assets)

Leaseholds and Leasehold Improvements: The ordinary lease involves no capital investment by the lessee, who merely undertakes to pay rent in return for the use of property. But if the rental payments are considerably less than the use of the property is worth, and if the arrangement has a considerable period to run, the leasehold may have a substantial value. If a company has paid money for a leasehold, the cost is regarded as a capital investment that should be written off during the life of the lease.

When structures are built on leased property or alterations made or fixtures installed, they are designated as leasehold improvements. Hence, their cost must be written down to nothing during the life of the lease, since they belong to the landlord when the lease expires. The annual charge off for this purpose is called amortization of leasehold improvements.

Amortization of Patents: A patent should be dealt with in exactly the same way as a mining property i.e. its cost to the investor should be written off against earnings during its remaining life.

Amortization of Goodwill: Since goodwill has no duration of life apart from that of the business as a whole, the analyst should adjust the earnings by cancelling the charge.

Chapter 35: Public Utility Depreciation Policies

- Graham notes that in the public utility industry the depreciation polices have a large impact on the earnings. Depreciation is not a mere book keeping conception, because for the most part it registers an actual diminution of capital values, for which adequate provision must be made if creditors or owners are to avoid deceiving themselves.
- In the majority of cases the depreciation charges are consumed or offset over a period of time by even larger cash expenditures made for replacements or extensions. More often than not, therefore, depreciation charges are eventually found to be related to actual cash outlays and turn out to be as truly an expense of the business as wages or rents. Minority cases are fairly numerous in which a good part of the depreciation reserve remains unexpended over a long period of time. In these instances a reduction of the annual charges may sometimes be justified in the investor's calculations, as we shall later explain. The broad principle remains, however, that an adequate depreciation allowance is essential in arriving at a fair statement of earnings.

- Some companies deduct some of the depreciation directly from surplus (shareholder equity) instead of going through the income account and the analyst must adjust earnings accordingly.

Chapter 36: Amortization Charges from the Investor's Standpoint

Graham notes that the depreciation charge that should be used is that is required to keep the company in operation at a stable earning power i.e. maintenance capital expenditure. While exact knowledge of this is not possible but the analyst should endeavor to develop a rough estimate of the maintenance capital expenditure. Graham's conception of earning power is equivalent to free cash flow as is currently used.

Business Aspect: Indications Regarding Future Earnings Power

Chapter 37: Significance of the Earnings Record

The accounting aspect was devoted to the critical examination of the income account to arrive at fair and informing income statement of the results for the period covered. The second main question is concerned with the utility of this past record as an indicator of future earnings. This is the most important and also the least satisfactory aspect of security analysis. It is important because the sole practical value of a laborious study of the past lies in the clue it may offer to the future; it is least satisfactory because this clue is never thoroughly reliable and it frequently turns out to be quite valueless. These shortcomings detract seriously from the value of the analyst's work but they do not destroy it. The past exhibit remains a sufficiently dependable guide, in a sufficient proportion of cases, to warrant its continued use as the chief point of departure in the valuation and selection of securities.

- Concept of Earning Power: The concept of earning power has a definite and important place in investment theory. It combines a statement of actual earnings, shown over a period of years, with reasonable expectation that these will be approximated in the future, unless extraordinary conditions supervene. The record must cover a number of years.

  A distinction must be drawn, however, between an average that is the mere arithmetical resultant of an assortment of disconnected figures and an average that is "normal" or "modal", in the sense that the annual results show a definite tendency to approximate the average. For an average calculated from wildly differing earnings numbers, there is no convincing reason to believe that the future earnings would bear any recognizable relationship to this average.

- Quantitative Analysis Should be Supplemented by Qualitative Considerations: An important principle of security analysis is: Quantitative data are useful only to the extent that they are supported by a qualitative survey of the enterprise.

  In order for a company's business to be regarded as reasonably stable, it does not suffice that the past record should show stability. The nature of the undertaking, considered apart from any figures, must be such as to indicate an inherent permanence of earning power.

  Graham compares Studebaker and US Steel and notes that even though Studebaker showed greater stability, the average US Steel earnings of $8 has far more significance as

a guide to the future than Studebaker's $6.75. This greater dependability arises from the entrenched position of US Steel in its industry and also from the relatively narrow fluctuations in both the annual output and the profit per ton over most of this period. Graham first estimates a normal annual steel output and a normal profit per ton to estimate the average earnings for US Steel. Although a substantial margin of error must be allowed for in such a computation, it at least supplies a starting point for an intelligent estimate of future probabilities.

- Current Earnings Should not be the Primary Basis of Appraisal: The market level of common stocks is governed more by their current earnings than by their long term average. This fact accounts in good part for the wide fluctuations in common stock prices, which largely (though by no means invariably) parallel the changes in their earnings between good years and bad. Because the speculative public is clearly wrong in its attitude on this point, it would seem that its errors should afford profitable opportunities to the more logically minded to buy common stocks at the low prices occasioned by temporarily reduced earnings and to sell them at inflated levels created by abnormal prosperity.

  This is the classical formula for beating the stock market. Obviously it requires strength of character in order to think and to act in opposite fashion from the crowd and also patience to wait for opportunities that may be spaced years apart. In actual practice the selection of suitable buying and selling levels become a difficult matter. Taking the long market cycle of 1921-1933, an investor might well have sold out at the end of 1925 and remained out of market in 1926-1930 and bought again in the depression year 1931.

  Graham notes that some stocks that sold at generous price may later so improve their position as to justify a still higher price. Such situations occur frequently, but the mistake of the market lies in its assumption that in every case changes of this sort are likely to go further whereas experience suggests such developments are exceptional and probabilities favor a swing of the pendulum in the opposite direction.

  An investor may on occasion attach predominant weight to the recent figures rather than to the average, but only when persuasive evidence is at hand pointing to the continuance of these current results.

- Average vs. Trend Earnings: In addition to emphasizing strongly the current showing of a company, the stock market attaches great weight to the indicated trend of earnings. Two problems with magnification of trend – tend might prove deceptive and valuations based on trend obey no arithmetical rules and therefore may be too easily exaggerated.

  Is not the trend at least as significant for the future as the average? Favorable trend must certainly be taken into account, but not by mere automatic projection of the line of growth into the distant future. Automatic or normal economic forces militate against the indefinite continuance of a given trend. Competition, regulation, the law of diminishing returns, etc, are a powerful foes to unlimited expansion, and in smaller degree opposite elements may operate to check a continued decline. Hence instead of taking the maintenance of a favorable trend for granted – as the stock market is wont to do – the analyst must approach the matter with caution, seeking to determine the causes of the superior showing and to weigh the specific elements of strength in the company's position against the general obstacles in the way of continued growth.

Attitude of Analyst Where the Trend is Upward – if a qualitative study leads to a favorable verdict – as frequently it should – the investment valuation should be based on an assumed earning power no larger than the company has already achieved in a period of normal business. This is suggested because, in our opinion, investment values can be related only to demonstrated performance; so that neither expected increases nor even past results under conditions of abnormal business activity may be taken as a basis. This assumed earning power may be properly capitalized more liberally when the prospects appear excellent than in the ordinary case, but would suggest that the maximum multiplier be held to a conservative figure (say 20, under the conditions of 1940). This would mean that price levels for "good stocks" under normal market conditions are likely to appear overgenerous to the conservative student. This does not mean that the analyst is convinced that the market valuation is wrong but rather that he is not convinced that its valuation is right. He would call a substantial part of the price a "speculative component" in the sense that it is paid not for demonstrated performance but for expected results.

Attitude of Analyst Where the Trend is Downward – When the trend has been definitely downward, the analyst will assign great weight to this unfavorable factor. He will not assume that the downcurve must presently turn upward, nor can he accept the past average – which is much higher than the current figure – as normal index of future earnings. But he will be chary about any hasty conclusions to the effect that the company's outlook is hopeless, that its earnings are certain to disappear entirely and that the stock is therefore without merit or value. A qualitative study of the company's situation and prospects is essential to forming an opinion whether at some price, relatively low, of course, the issue may not be a bargain, despite its declining earnings trend.

- Deficits a Qualitative, Not a Quantitative Factor: Graham notes that when an average of earnings is taken over a period that includes a number of deficits, some question must arise as to whether or not the resultant figure is really indicative of the earning power.

  The deficit figure when taken by themselves have no quantitative significance and that their value in forming an average may often be open to serious question.

- Intuition Not a Part of the Analyst's Stock in Trade: In the absence of indications to the contrary we accept the past record as a basis for judging the future. But the analyst must be on the lookout for any such indications to the contrary. Here we must distinguish between vision or intuition on the one hand, and ordinary sound reasoning on the other. The ability to see what is coming is of inestimable value, but it cannot be expected to be part of the analyst's stock in trade. (If he had it, he could dispense with analysis.) He can be asked to show only that moderate degree of foresight which springs from logic and from experience intelligently pondered. Analysis of the future should be penetrating rather than prophetic.

  Example – Intertype Corporation, selling at $8, is an established company and one of the leaders in the relatively small industry of line-casting machines. Its recent earnings are not favorable and there does not seem any reason to be optimistic as to the near term outlook. The balance sheet is strong with net current assets equaling $20. The essential question for an investor is whether the company can be counted to remain in business and participate about as before in good times and bad. The company's strong position in the industry and strong financial position suggest an affirmative answer. If this were granted the investor

would then point out that the shares could be bought for $8 with very small chance of ultimate loss and with every indication that under the next set of favorable conditions the value of the stock would double.

This type of reasoning lays emphasis not upon an accurate prediction of future trends but rather on reaching the general conclusion that the company will continue to do business pretty much as before. Wall street is inclined to doubt that any such presumption may be applied to companies with an irregular trend, and to consider that it is just as difficult and hazardous to reach a conclusion of this kind as to determine that a growing company will continue to grow. However there are two advantages to Intertype form of reasoning over the customary attitude which would prefer Coca Cola at 22 times recent earnings because of its virtually uninterrupted expansion of its profits for more than 15 years: (1) Private business is conducted and investments made on the same kind of assumptions that we have made with respect with Intertype (2) This type of investment can be conservative in that it allows for a liberal margin of safety in case of error or disappointment. It runs considerable less risk of confusion between "confidence in the future" and mere speculative enthusiasm.

- Large Profits Frequently Transitory: Graham cautions against assuming that large profits would continue in future. Provides three examples of companies where profits proved temporary – J W Watson which manufactured a single type of automotive accessory. Success of such a gadget is normally short lived, competition and changes in the art being a threat to the stability of earning power; Coty Inc, which depended on the popularity of trademarked line of cosmetics. Variable tastes of women could readily destroy profits; Brewery stocks in 1933 where a flood of capital poured into the new industry resulting in overcapacity and competition.

Chapter 38: Specific Reasons for Questioning or Rejecting the Past Record

- In analyzing an individual company, each of the governing elements in the operating results (physical volume of goods sold, price per unit, cost of raw materials, cost of labor, depreciation, etc) must be scrutinized for signs of possible unfavorable changes in the future.
- In mining industry, the governing elements are (1) the life of the mine (2) annual output (3) production costs and (4) selling price. Output and costs may be affected adversely if the ore to be mined in the future differs from that previously mined in location, character or grade.
- Graham gives the example of Freeport where future profits were now expected from a new project. The project was not yet equipped and in operation, and hence subject to many hazards that attach to enterprises in development stage. Hence, he suggests that the past record here is not relevant to its future history. He further shows that the market is in effect placing a valuation of some $20 million or more upon a new enterprise in which only $3 million was to be invested. Since the project was based on a lease from oil companies who might have driven as hard a bargain as possible, expecting these sort of returns from this investment would be imprudent.

- Evidently the stock market – like the heart – has reasons all its own. In the writer's view, where these reasons depart violently from sound sense and business experience, common-stock buyers must inevitably lose money in the end, even though large speculative gains may temporarily accrue, and even though certain fortunate purchases may turn out to be permanently profitable.
- The above considered the rate of output and operating costs upon which the past record is based. We must also consider any indications as may be available in regard to the future selling price of the product. This must ordinarily enter the field of prophecy and the analyst can truthfully say very little about future prices, except that they fall outside the realm of sound prediction.
- Change in the status of low cost producers. In 1914 a number of low cost copper producers have succeeded in reducing extraction costs through metallurgical improvements. This lowered the center of gravity of production costs for the entire industry. Other things being equal, this would make for a lower selling price in the future than obtained in the past. The analyst would have to allow for these developments in his calculations, by taking a cautious view of future copper prices.
- Where there is an upper limit of earnings or value is fixed, there is usually a danger that the actual figure will less than the maximum.

Aspect of Investment Finance: Valuation – Determining a Price Earnings Multiple

Chapter 39: Price-Earnings Ratios for Common Stocks. Adjustments for Changes in Capitalization

- A given common stock is generally considered to be worth a certain number of times its current earnings by Wall Street. This multiplier, depends partly on the prevailing psychology and partly on the nature and record of the enterprise. Prior to 1927-29 bull market 10 times earnings was the accepted standard of measurement – it is the common point of departure for valuing common stocks, so that an issue would have to be considered exceptionally desirable to justify a higher ratio, and conversely.
- Exact appraisal impossible: Security analysis cannot presume to lay down general rules as to the proper value of any given common stock. Practically speaking, there is no such thing. The bases of value are too shifting to admit of any formulation that could claim to be even reasonably accurate.
- Limited functions of the analyst in field of appraisal of stock prices: Confronted by a mixture of changing facts and fluctuating human fancies, the securities analyst is clearly incapable of passing judgment on common-stock prices generally. There are, however, some concrete, if limited, functions that he may carry on in this field, of which the following are representative
    - He may set up a basis for conservative or investment valuation of common stocks, as distinguished from speculative valuations.

  - He may point out the significance of the capitalization structure and source of income as bearing upon the valuation of a given stock issue
  - He may find unusual elements in the balance sheet which affect the implications of the earnings picture.

- A suggested basis of maximum appraisal for investment: The investor in common stocks, equally with the speculator, is dependent on future rather than past earnings. His fundamental basis of appraisal must be an intelligent and conservative estimate of the future earning power. But his measure of future earnings can be conservative only if it limited by actual performance over a period of time.
  - The profits of the most recent year, taken singly, might be accepted as the gage of future earnings, if (1) general business conditions in that year were not exceptionally good, (2) the company has shown an upward trend of earnings for some years past and (3) the investor's study of the industry gives him confidence in its continued growth.
  - Only in a very exceptional case, the investor may be justified in counting on higher earnings in the future than at any time in the past. This might follow from developments involving a patent or the discovery of new ore or some similar specific and significant occurrence.
  - In most instances the investor should derive the investment value of common stock from the average earnings of a period between five and ten years. This does not mean that all common stocks with the same average earnings should have the same value. The common stock investor will properly accord a more liberal valuation to those issues which have current earnings above the average or which may reasonably considered to posses better than average prospects or an inherently stable earning power.
  - The essence of Graham's view is that some moderate upper limit must in every case be placed on the multiplier in order to stay within the bounds of conservative valuation. He suggests that about 20 times average earnings is as high a price as can be paid in an investment purchase of a common stock.
    - Investment presupposes demonstratable value and the typical common stock's value can be demonstrated only by means of an established i.e. earnings power. But it is difficult to see how average earnings of less than 5% upon the market price could every be considered as vindicating that price. Clearly such a PE ratio could not provide that margin of safety which we have associated with the investor's position.
    - It might be accepted by a purchaser in the expectation that future earnings will be larger than in the past. But in the original and most useful sense of the term such a basis of valuation is speculative. It falls outside the purview of common stock investment.
  - Higher prices may prevail for speculative commitments. Graham asks us to note this distinction. It is not a mistake to pay more than 20 times average earnings for any common stock. He suggests that such a price would be speculative. The purchase

may turn out to be highly profitable, but in that case it will have proved a wise or fortunate speculation – and very few people are consistently wise or fortunate in their speculative operations. As a corollary, he suggests, that people who habitually purchase common stocks at more than 20 times their average earnings are likely to lose considerable sums of money in the long run. This is more probable because, in the absence of such a mechanical check, they are prone to succumb recurrently to the lure of bull markets, which always find some specious argument to justify paying extravagant prices for common stocks.

- Other requisites for common stocks of investment grade. If 20 times average earnings is the upper limit of price for investment purchase, then ordinarily the price paid should be substantially less than this maximum. This suggests that about 12 or 12.5 times average earnings may be suitable for the typical case of a company with neutral prospects. A reasonable ratio of market price to average earnings is not the only requisite for a common stock investment. This is a necessary but not a sufficient condition. The company must be satisfactory also in its financial setup and management, and not unsatisfactory in its prospects.
    - An important corollary of this: An attractive common-stock investment is an attractive speculation. This is true because, if a common stock can meet the demand of a conservative investor that he get full value for this money plus not unsatisfactory future prospects, then such an issue must also have a fair chance of appreciation in market value.

- Examples of speculative and Investment common stocks: Common stock investment operations, as Graham defines them, occupy a middle ground in the market, lying between low price issues that are speculative because of doubtful quality and well entrenched issues that are speculative, none the less, because of their high price. Graham presents three categories of companies to illustrate the differences between investment and speculative stocks.
    - Group A: Blue chip or first grade stocks which are characterized by strong financial position, presumably excellent prospects and in most cases by relatively stable or growing earnings in the past. They sell at high prices relative to earnings and at enormous premiums above the actual capital invested. The high prices paid for the best common stocks make these purchases essentially speculative, because they require future growth to justify them.
    - Group B: Speculative because of great instability of their earnings records. They have varying relationships of market price to average earnings, maximum earnings and asset values.
    - Group C: Those that meet specific and quantitative tests of investment quality including – earnings are reasonably stable, average earnings bear satisfactory ratio to market price and financial setup is sufficiently conservative and working capital position is strong. Another characteristic (though not required) is that they will not sell for a huge premium above the companies actual resources.

      Common stock investment will confine itself to issues similar to Group C. But the actual purchase of any such issues must require also that the purchaser be satisfied

in his own mind that the prospects of the enterprise are at least reasonable favorable.

- Allowances for changes in capitalization: When the change in capitalization has been due to the sale of additional stock at a comparatively low price, the earnings available for common during the earlier period must be increased by whatever gain would have followed from the issuance of the additional shares.
    - When bonds or preferred shares have been converted into common, the charges formerly paid are to be added back to the earnings and the new figure then applied to the larger number of shares.
    - A corresponding adjustment of per share earnings must be made at times to reflect the possible future increase in the number of shares outstanding as a result of conversions or exercise of stock options.
    - Whenever a stock is subject to dilution by stock options or through participating privileges enjoyed by other securities holders, the analyst must assume that the exercise or conversion takes place in full and adjust the earnings accordingly.

Chapter 40: Capitalization Structure

- The division of a company's total capitalization between senior securities and common stock has an important bearing upon the significance of the earning power per share. Graham suggests there is an optimum capitalization structure.
- He presents a hypothetical example of three companies, A, B and C each with an earning power of $1 million and are identical in each respects except the capitalization structure. Company A does not have any senior securities, Company B has a moderate debt and Company C has a large debt. The enterprise value (market value of stock and market value of bonds) of the three companies is likely to be different.
    - Company A is likely to be valued at a lower PE due to oversimplification of the capital structure. Investors not wanting such a bond component would be unwilling to pay extra for it.
        - This leads to an important principle: The optimum capitalization structure for any enterprise includes senior securities to the extent that they may safely be issued and bought for investment.
        - The above principle means that the contribution of the entire capital by the common stockholders may be called an over conservative setup, as it tends generally to make the shareholder's dollar less productive to him than if a reasonable part of the capital were borrowed. An analogous situation holds true in most private businesses, where it is recognized as profitable and proper policy to use a conservative amount of banking accommodation for seasonal needs rather than to finance operations entirely by owners capital.
    - Company B which is financed with an amount of debt that can safely be serviced has a higher enterprise value than Company A. Due to leverage Company B's per share earnings are more responsive to an increase in aggregate earnings than Company A. While this also increases the sensitivity to a possible decline in profits, if an

investor expects higher earnings in future – and presumably he selects his common stocks with this in mind – he would be justified in selecting an issue that will benefit more from a given degree of improvement.

- Company C which has a large amount of debt would sell at a lower enterprise value than B, since the bonds are likely to be selling at a large discount to the face value as they are not safe. Thus there are definite limits upon the advantages to be gained by the use of senior securities. This advantage ceases at the point where their amount becomes larger than can safely be issued or bought for investment.
- Thus Company A capitalization arrangement can be characterized as conservative, Company C speculative and Company B suitable or appropriate.

- Speculatively Capitalized Stocks: Although a speculative capitalization structure throws all the company's securities outside the pale of investment, it may give the common stock a definite speculative advantage. A small increase in aggregate earnings may increase per share earnings by a large amount. Because of this there is some tendency of speculatively capitalized enterprises to sell at relatively high values in the aggregate during good times. Conversely, there may be subject to a greater degree of undervaluation in depression. There is, however, a real advantage in the fact that such issues, when selling on a deflated basis, can advance much further than they can decline.
  - Overdeflation of speculative issues in unfavorable markets creates the possibility of an amazing price advance when conditions improve, because the earnings per share then show so violent an increase.
  - In speculatively capitalized enterprise, the common stockholders benefit – or have the possibility of benefitting – at the expense of the senior security holders. The common stockholder is operating with a little of his own money and with a great deal of senior security holder's money.
  - It would be easy to recommend the purchase of speculatively capitalized stocks when they are selling at abnormally low levels due to temporarily unfavorable conditions, but this assumes that the intelligent speculator can consistently detect and wait for these abnormal and temporary conditions. If this is so, he could make a great deal of money regardless of what type of common stock he buys and under such conditions he might be better advised to select high grade common stocks at bargain prices rather than these more speculative issues.
  - More practically, the purchase of speculatively capitalized stocks must be considered under general market conditions that are normal. Assuming diversification and reasonably good judgment in selecting companies with satisfactory prospects, it would seem that the speculator should be able to profit rather substantially in the long run from commitments of this kind. In making such purchases, partiality should be shown to those companies in which most of the senior capital is in the form of preferred stock rather than bonds. Such a restriction removes or minimizes the danger of extinction of the junior equity through default in bad times and thus permits the stock holder to maintain his position until prosperity returns.
    - Since this benefits the common stock holder, it is clearly disadvantageous to the preferred stock holder.

- There is a peculiar practical difficulty in realizing the full amount of prospective gain in any one of the purchases. As soon as a substantial profit appears, the holder is in a dilemma, because he can hold for a further gain only by risking that already accrued. Just as a convertible bond loses its distinctive advantages when the price rises to a point that carries it clearly outside of the straight investment class, so a common stock holder commitment is transformed into a more and more substantial commitment as the price continues to rise. An intelligent purchaser of Mohawk rubber at 15 could not have expected to hold it beyond 100, because at 100 the shares the distinctive characteristics of a speculatively capitalized junior issue.

Chapter 41: Low Priced Common Stocks. Analysis of the Source of Income

- In the securities market it is commonplace that an issue will rise more readily from 10 to 40 than from 100 to 400. This fact is due in part to the preferences of the speculative public, which generally much more partial to issues in the 10-40 range.
- The profound liking of public for "cheap stocks" would seem to have sound basis in logic. Yet most people who buy low priced stock lose money. This is because the public buys issues that are sold to it, and the sales effort is put forward to benefit the seller and not the buyer. In consequence, the bulk of the low priced purchases made by the public are of the wrong kind.
- A genuinely low priced common stock will show an aggregate value for the issue which is small in relation to the company's assets, sales and past or prospective profits.
- Observations of the stock market will show that the stocks of companies facing receivership are likely to be more active than those which are very low in price because of poor current earnings. This is caused by desire of insiders to dispose off the holdings before the receivership wipes them out. But where a low priced stock fulfills our conditions of speculative attractiveness, there is apt to be no pressure to sell and no effort to create buying.
- Low price coupled with speculative capitalization: Speculatively capitalized enterprises, are marked by a relatively large amount of senior securities and a comparatively small issue of common stock. Even if there are no senior securities, the common stock may have possibilities equivalent to those in a speculatively capitalized enterprise when market value of the common stock represents a small amount of money in relation to the size of the business, regardless of how it is capitalized. Large rental charges or other such fixed costs are equivalent in good part to senior securities.
    - The speculative or marginal position may arise from any cause that reduces the percentage of gross available for the common to a subnormal figure and that therefore serves to create a subnormal value for the common stock in relation to the volume of business. Unusually high operating or production costs have the identical effect as excessive senior charges in cutting down the percentage of gross available to common.

  - An inverse relationship usually exists between profit per unit and output per dollar of stock value. Company A which has 7 cent cost sells at a higher price pound of output than Company C with its 9 cent cost.
    - This gives rise to speculative technique: When a rise in the price of the commodity occurs, there will ordinarily be a larger advance, percentagewise, in the shares of high cost producers than in the shares of low cost products.
    - Contrary to general impression in Wall Street, the stocks of high cost producers are more logical commitments than those of the low cost producers when the buyer is convinced that a rise in the price of the product is imminent and he wishes to exploit this conviction to the utmost.
- Graham suggests that the source of income be studied in relation to specific assets owned by the company, instead of in relation merely to the general nature of the business. This may be quite important when a substantial portion of the income accrues from investment holdings or from some other fixed and dependable source.
  - Income derived from large bond holdings would be valued at a different multiplier than from the operations.
  - Situations of this kind arise with sufficient frequency to make this a worthwhile pursuit.

Part VI: Balance Sheet Analysis. Implications of Asset Values

Graham describes four fundamental areas of usefulness of Balance Sheet Analysis

1. Balance sheet identifies the quantity and nature of resources tied up in a business. For an economically viable enterprise, these resources are the basis of its returns. In a competitive environment, a firm without resources cannot generally expect to earn any significant profits. If an enterprise is not economically viable, then the balance sheet can be used to identify the resources that can be recovered in liquidation and how much cash the resources might return.
2. The resources on a balance sheet provide a basis for analyzing the nature and stability of sources of income. Earnings on assets that are well in excess of a company's cost of capital will be sustainable only under special circumstances. Thus, earnings estimates will be more realistic and accurate if they are supported by asset values. Earnings without such support are likely to be of short duration and, thus, of less value than earnings protected by the necessary returns on assets in place.
    - For economically viable firms, assets wear out and become obsolete and have to be replaced. Thus, replacement value – the lowest possible cost of producing a firm's assets by the competitors who are best positioned to do it, should be used for estimating the current value of assets. The potential difficulty of calculating replacement costs seem to have deterred Graham from considering them. Investors today can calculate them with a precision that was unattainable in Graham's time.
    - If a company could be bought at a price well below liquidation value, then it seemed unambiguously to be a bargain. Earnings could improve because of either an improvement in firm's industry environment or better management. If earnings improvement produced a market value above liquidation value, all well and good. If such positive earnings development failed to materialize and if this happened before liquidation value of the firm was significantly damaged, then the company can be liquidated and proceeds distributed below liquidation value. In either case, the shareholders who bought below liquidation value would earn a satisfactory return on their investment. The only risk was that the management would continue to operate the firm unprofitably and in the process dissipate the value of the assets.
    - Firms often have some assets – most notably cash – that are superfluous to the operation of their basic businesses. Such assets do not usually contribute to operating earnings but they may represent an important part of the intrinsic value of a purchased security. The value of these assets must be added to any earnings based value estimate (after appropriate subtraction of their interest income so as to not double count).
3. Liabilities side of the balance sheet, which identifies sources of funding, describes the financial condition of the firm. A high level of short term debt (or long term debt that expires in the near future) indicates a possibility of debilitating financial distress. Under these circumstances, even a slight impairment in profits may lead to significant permanent loss in the value of a business.

4. The evolution of the balance sheet over time provides a check on the quality of earnings. A balance sheet can be checked for accuracy and value as it is a snapshot of assets and liabilities at a particular time. This places significant constraints on the degree to which the assets and liabilities can be manipulated. In contrast, flow variables like revenue and earnings measure changes over time and by their nature are evanescent. If they are to be monitored, they must be monitored over an extended period.

Chapter 42: Balance Sheet Analysis. Significance of Book Value

Practical Significance of Book Value: Book value of a common stock was originally the most important element in its financial exhibit. This idea has almost completely disappeared and book value has lost practically all its significance. This change arose because first, the value of the fixed assets, as stated, frequently bore no relationship to the actual cost and second, that in an even larger proportion of the cases these values bore no relationship to the figure at which they would be sold or the figure which would be justified by the earnings.

- In any particular case the message that the book value conveys may well prove to be inconsequential and unworthy of attention. But this testimony should be examined before it is rejected. Let the stock buyer, if he lays any claim to intelligence, at least be able to tell himself, first, what value he is actually setting on the business and, second, what he is actually getting for his money in terms of tangible resources.
- A business that sells at a premium to asset value does so because it earns a large return upon its capital; this large premium attracts competition, and, generally speaking, it is not likely to continue indefinitely. Conversely, in the case of a business selling at a large discount because of abnormally low earnings. The absence of new competition, the withdrawal of old competition from the field and other economic forces may tend eventually to improve the situation and restore a normal rate of profit on investment.
- Although this is orthodox economic theory, and undoubtedly valid in a broad sense, we doubt if it applies with sufficient certainty and celerity to make it useful as a governing factor in common stock selection. Under modern conditions the so called "intangibles" are every whit as real from a dollars and cents standpoint as are buildings and machinery. Earnings based on these intangibles may be even less vulnerable to competition than those which require only a cash investment in productive facilities. Furthermore, when conditions are favorable the enterprise with the relatively small capital investment is likely to show a more rapid rate of growth. Ordinarily it can expand its sales and profits at slight expense and therefore more rapidly and profitably for its stockholders than a business requiring a large plant investment per dollar of sales.
- Therefore, it is not possible to lay down any rules on the subject of book value in relation to market price, except the strong recommendation already made that the purchaser know what he is doing on this score and be satisfied in his own mind that he is acting sensibly.

Chapter 43: Significance of Current Asset Value

The current asset value is generally a rough index of the liquidating value – the money that the owners could get out of it if they wanted to give it up. Such liquidations are of everyday occurrence in the field of private business. By contrast, however, they are very rare indeed in the field of publicly owned corporations.

- The first rule of calculating liquidating value is that the liabilities are real but the value of assets must be questioned. This means that all true liabilities shown on the books must be deducted at their face amount. The value ascribed to assets, however, will vary according to their character. In the typical case the noncurrent assets are likely to realize enough to make up most of the shrinkage suffered in the liquidation of the current assets. Hence, current assets value affords a rough measure of the liquidating value.
- When a common stock sells persistently below its liquidating value, then either the price is too low or the company should be liquidated.
    - Stocks selling below liquidation value are in many cases too cheap and so offer an attractive medium for purchase.
    - In many cases it is also a signal that mistaken policies are being followed and that therefore the management should take corrective action.
- Common stocks in this category practically always have an unsatisfactory trend of earnings. The objection to buying these issues lies in the probability, or at least the possibility, that the earnings will decline or losses continue and that the resources will be dissipated and the intrinsic value ultimately become less than the price paid. It may not be denied that this does actually happen in individual cases. On the other hand, there is a much wider range of potential developments which may result in establishing a higher market price.
    - The creation of an earning power commensurate with the company's assets as a result of general improvement in industry or favorable change in company operating policies with or without change in management.
    - A sale or merger, because some other concern is able to utilize the resources to better advantage.
    - Complete or partial liquidation.
- Discrimination required in selecting such issues: There is scarcely any doubt that common stocks selling well below liquidating value represent on the whole a class of undervalued securities. They have declined in price more severely than the actual conditions justify. This must mean that on the whole these stocks afford profitable opportunities for purchase. Nevertheless, analyst should exercise as much discrimination as possible in the choice of issues falling within this category. He will lean towards those for which he sees a fairly imminent prospect of some one of the favorable developments listed above. Or else he will be partial to such as reveal other attractive statistical features besides their liquid asset position e.g. satisfactory current earnings or a high average earning power in the past. The analyst will avoid issues that have been losing their current assets at a rapid rate and show no definite signs of ceasing to do so.
- Investment in such bargain issues need to be carried out with some regard to general market conditions at the time. This type of operation fares best when price levels are neither extremely high nor extremely low. The purchase of cheap stocks when market as a whole seems much higher than it should will not work out well, because the ensuring decline is likely to bear almost as severely on these neglected stocks issues as on the

general list. On the other hand, when all the stocks are very cheap, there would seem to be fully as much reason to buy undervalued leading issues as to pick out less popular stocks.

- A common stock representing the entire business cannot be less safe than a bond having a claim to only a part thereof. This seems to be saying that the market value of common stock, without any debt in the capital structure, could not be less than the amount of debt that can be safely issued (investment grade).

Chapter 44: Implications of Liquidating Value. Stockholder Management Relationships

Graham states that the stockholder has abdicated his responsibilities not intentionally but by default. This docility and seeming apathy are results of certain traditional but unsound viewpoints which he seems to absorb by inheritance or by contagion. These notions include

1. Management knows more about the business than the stockholders do, and therefore its judgment on all matters of policy is to be accepted.
    - It is nearly always true that the management is in the best position to judge which policies are most expedient. But it does not follow that it will always either recognize or adopt the course most beneficial to the shareholders. It may err grievously through incompetence.
    - A second reason for not always accepting the decision of the management is that on certain points the interests of the officers and the stockholders may be in conflict – compensation of officers; expansion of business, thereby right to larger salaries and more power and prestige; payment of dividends; liquidation of business.
    - In all these questions the decisions of the management are interested decisions and hence require scrutiny by the stockholders. Managements are to be trusted but does not mean they should be given carte blanche in all matters affecting their own interests. A private employer hires only men he can trust, but he does not let these men fix their own salaries or decide how much capital he should place or leave in business.
    - Directors not always free from self-interest in connection with these matters. Directors have close ties to the CEO, get high compensation and often are chosen by the CEO.
    - Managements are loath to return any part of the capital to its owners, even though this capital may be far more useful and therefore valuable outside of the business than in it. Returning a portion of the capital means curtailing the resources of the enterprise, perhaps creating financial problems and reducing the prestige of officers. Complete liquidation means the loss of the job itself.
2. Management has no interest in or responsibility for the prices at which the company securities sell.
    - Management may properly take some interest in market price of shares. Marketability of securities is one of the chief qualities considered in their purchase. But marketability presupposes not only a place where they can be sold but also an opportunity to sell them at a fair price. It follows that the responsibility of

managements to act in the interest of their shareholders includes the obligation to prevent – in so far as they are able – the establishment of either absurdly high or unduly low prices for their securities.

3. If a stockholder disapproves of any major policy of the management, his proper move is to sell his stock.

Chapter 45: Balance Sheet Analysis

The previous discussion centered on the situation in which the balance sheet apparently justified a higher price than prevailed in the market. The more usual purpose of balance sheet analysis is to detect the presence of financial weakness that may detract from the investment or speculative merits of an issue. Careful buyers of securities scrutinize the balance sheet to see if the cash is adequate, if the current assets bear a suitable ratio to current liabilities, and if there is any indebtedness of near maturity that may threaten to develop into a refinancing problem.

- Working Capital Position: Previously a working capital ratio of $2 current assets for $1 of current liabilities was regarded as standard for industrial companies. The investor must form his own opinion as to what is needed in any particular case.
- Large Bank Debt Frequently a Sign of Weakness: Financial difficulties are almost always heralded by the presence of bank loans or of other debt due in a short time. In other words, it is rare for a weak financial position to be created solely by ordinary trade accounts payable. This does not mean that bank debt is a bad sign in itself – the use of reasonable amount of bank credit particularly for seasonal needs is desirable. But, whenever the statement shows Notes or Bills Payable, the analyst will perform closer scrutiny.
    - When a company's earnings are substantial, it rarely becomes insolvent because of bank loans.
- The Danger of Early Maturing Funded Debt: A large bond issue coming due in a short time constitutes a critical financial problem when operating results are unfavorable. Investors and speculators should both give serious thought to such a situation when revealed by a balance sheet. Maturing funded debt is a frequent cause of insolvency. Even when the maturing debt can probably be taken care of in some way, the possible cost of the refinancing must be taken into account.

Comparison of Balance Sheets Over a Period of Time: This important part of security analysis may be considered under three aspects:

1. As a check on the reported earnings per share.

   Comparing the total earnings for a company over a 10 year period as reported by the income statement with the change in shareholder equity on the balance sheet over this period provides a check on the reliability of the earnings reported. This would show if any charge offs have been made directly to the balance sheet without going through the income statement, thus overstating the reported earnings.

   Increase in shareholder equity = Total 10 year earnings – Total 10 year Dividends paid

2. To determine the effect of losses (or profits) on the financial position of the company.

Sometimes while taking losses the company may actually improve its financial position and likewise even when showing profits the company could have a deteriorating financial position.

Losses that are represented solely by a decline in the inventory account are not so serious as those which must be financed by an increase in current liabilities. If the shrinkage in the inventory exceeds the losses, so that there is an actual increase in cash or reduction in payables, the company's financial position has been strengthened even though it has been suffering losses.

If we have large earnings but a coincident deterioration of the financial position due to heavy expenditure on plant and a dangerous expansion of inventory.

3. To trace the relationship between the company's resources and it's earning power over a long period (30 years). This comes into play only in an exhaustive study of a company's record and inherent characteristics.

   Graham uses the example of US Steel and Corn Products Refining Company to illustrate the long range study of earning power and resources. He uses the balance sheet at the beginning and end of each decade over a 30 year period. He calculates the return on average capital for each decade [(Avg Earnings)/(Avg Capital)].

   Capital = Fixed and misc assets + Net Working Capital;

   Avg Capital = (Capital at Beginning of decade + Capital at End of decade)/2

Operating Results				
Item	1903-1912	1913-1922	1923-1932	Total for 30 years
Finished goods produced	93.4 tons	123.3	118.7	335.4
Gross Sales	$4,583	$9,200	$9,185	$22,968
Net Earnings	979	1674	1096	3749
Bond Interest	303	301	184	788
Common Dividends	140	356	609	1105

Relation of Earnings to Average Capital				
Item	1903-1912	1913-1922	1923-1932	Total for 30 years
Capital at beginning	987	1416	2072	987
Capital at end	1416	2072	2112	2112

Average Capital	1200	1750	2100	1700
% earned on average capital per year	8.1%	9.6%	5.2%	7.4%
Average common equity	237	620	1389	816
% earned on common equity	17.7	18.3	4.8	9.0
Depreciation per year	24	34	46	35
Average fixed property account	1000	1320	1600	1300
Ratio of depreciation to fixed property	2.4%	2.6%	2.9%	2.7%

Balance Sheet Changes								
	Dec 31 1902	Dec 31 1912	Changes in 1st decade	Dec 31 1922	Changes in 2nd decade	Dec 31 1932	Changes in 3rd decade	Changes in 30 years
Assets: Fixed and Misc	820	1160	+340	1466	+306	1741	+275	+921
Net Current Assets	167	256	+89	606	+350	371	-235	+204
Total	987	1416	+429	2072	+656	2112	+40	+1125
Liabilities: Bonds	380	680	+300	571	-109	116	-455	-264
Preferred stocks	510	360	-150	360		360		-150
Common stock	508	508		508		952	+444	+444
Surplus/Reserves	411 (d)	132 (d)	+279	633	+765	679	+46	+1090
Total	987	1416	+429	2072	+656	2112	+40	+1125

US Steel has earned a satisfactory 8% return on capital in the first two decades but it earned only 5.2% in the third decade. The actual investment in US Steel was more than doubled and its productive capacity was increased threefold. Yet the average annual production was only 27% higher, and average annual earnings before interest

charges were only 12% higher in 1923-32 than 1903-12. This raises the question if steel production has been transformed from a reasonably prosperous into a relatively unprofitable industry and if this transformation is due in good part to excessive reinvestment of earnings in additional plan, thus creating over capacity with resultant reduction in margin of profit.

A similar analysis of Corn Products shows that it was able to increase its earning power proportionately with its enlarged capital investment. It earned 5.0%, 11.8%, 10.7% in each of the three decades. Its annual profits (both before and after depreciation) were about four times as large in this decade as in the period ending in 1915. Thus the record of Corn Products Company does not suggest the same questions or doubts as arise from US Steel.

Part VII: Additional Aspects of Security Analysis. Discrepancies between Price and Value

Chapter 46: Stock Option Warrants

Graham gives a basic description of how stock options work and notes that the analyst should be careful to adjust for the diluting effect on stock values.

Chapter 47: Cost of Financing and Management

Graham cautions the investor about the mischievous activities of the investment banking industry.

- It was an established Wall Street maxim that capital for a new enterprise must be raised from private sources. These private interests would be in a position to make their own investigation, work out their own deal and keep in close touch with the enterprise, all of which safeguards were considered necessary to justify a commitment in any new venture.
- Investment banking is ripe for conflicts of interest. He makes a deal on his own behalf with the originators of the enterprise and then he makes a separate deal with the public to raise from them the funds he has promised the business. He wonders if the size of the compensation should cause the stock buyer to view the investment banker as essentially his agent and representative or must view the issuing house as a promoter-proprietor-manager of a business, endeavoring to raise funds to carry on.
- Securities Act of 1933 aims to safeguard the security buyer by requiring full disclosure of the pertinent facts. Although full disclosure is undoubtedly desirable, it may not be of much practical help except to the skilled and shrewd investor or to the trained analyst. Modern financing methods are not far different from a magician's bag of tricks; they can be executed in full view of the public without its being very much the wiser.
- Regulations against swindles, has led to a different type of security promotion. Instead of offering something entirely worthless, the promoter selects a real enterprise than he can sell at much more than its fair value. By this means the law can be obeyed and the public exploited just the same. In theory a promoter may offer something worth $1 per share at $5, provided he discloses all the facts and adds no false representations.

Chapter 48: Some Aspects of Corporate Pyramiding

Pyramiding in corporate finance is the creation of a speculative capital structure by means of a holding company or a series of holdings companies. Usually the predominant purpose of such an arrangement is to enable the organizers to control a large business with the investment of little or no capital and also to secure to themselves the major part of its surplus profits and increased going-concern value.

- The possession of control of companies by those who have no real capital investment (or relatively minor one) is inequitable and makes for irresponsible and unsound managerial policies.
- Not all holdings companies are created for this purpose and each has to be analyzed on its own merits.

Chapter 49: Comparative Analysis of Companies in the Same Field

Statistical comparisons of groups of concerns operating in a given industry permit each company's showing to be studied against a background of the industry as a whole. They frequently bring to light instances of undervaluation or overvaluation or lead to the conclusion that the securities of one enterprise should be replaced by those of another in the same field.

- It is more logical and effective to ignore calendar year division and to use instead the result for the twelve months to the latest date available for studying the latest one year results.
- In addition to the results for the latest one year, average results over the past 5 or 7 calendar years should be studied. It should be long enough to cover a full cyclical fluctuation but not so long as to include factors or results that are totally out of date.
- Caution is needed in trying to compare the relative attractiveness of two stocks where one is speculatively capitalized and the other conservatively capitalized. The two stocks will respond quite differently to changes for the better or the worse, so that an advantage possessed by one of them under current conditions may readily be lost if conditions should change. Ex. Union Pacific had a 9.1% earnings yield and Chicago Rock Island had a 2.4% earnings yield in 1922, yet a conclusion that Union Pacific was cheaper based on these figures would have been fallacious because the capitalization structures were so different. By 1927, Union Pacific had a 9.0% earnings yield and Chicago Rock Island had a 13.1% earnings yield as a result of gain from its speculative capitalization and general business expansion during this period. It would be equally fallacious to conclude Chicago Rock Island is attractive at this time.
- The division of importance as between the current year results, the seven year average and the trend is something entirely for the analyst's judgment to decide. Naturally, he will have the more confidence in any suggested conclusion if it is confirmed on each of these counts.
- Conclusions suggested by comparative tabulations of this sort should not be accepted until careful thought has been given to the qualitative factors. When one issue seems to be selling much too low on the basis of the exhibit in relation to that of another in the same field, there may be adequate reasons for this disparity that the statistics do not disclose. Among such valid reasons may be a definitely poorer outlook or a questionable management.
- Relative popularity and relative market activity are two elements not connected with intrinsic value that nevertheless exert a powerful and often a continuing effect upon the market quotation. The analyst must give these factors respectful heed, but his work would be stultified if he always favored the more active and the more popular issue.
- The dependability of industrial comparisons will vary with the nature of the industry considered. The basic question, of course, is whether future developments are likely to affect all the companies in the group similarly or dissimilarly. If similarly, then substantial weight may be accorded to the relative performance in the past, as shown by the statistical exhibit. An industrial group of this kind may be called "homogeneous". But, if individual companies in this field are likely to respond quite variously to new

conditions, then the relative showing must be regarded as a much less reliable guide. A group of this kind may be called "heterogeneous".

- Homogeneous: Railroads; power utilities; producers of raw materials and of other standardized products in which the trade name is a minor factor – producers of sugar, coal, metals, steel products, cement, cotton print cloths, etc; Larger oil companies; Larger chain store enterprises;
- Heterogeneous: Makers of manufactured goods sold under advertised trade-marks – in this field one concern frequently prospers at the expense of its competitors, so that the units in the industry do not improve or decline together; Automobile manufacturers; Producers of various classes of machinery and equipment; Drug manufacturers;

The analyst must be cautious about drawing conclusions from the statistical data when dealing with companies in the heterogeneous group – the analyst may give preference to companies making the best quantitative showing but the analyst should be aware that such superiority may prove evanescent. The less homogeneous the group the more attention must be paid to the qualitative factors in making comparisons.

- The analyst must be careful not to be deluded by the mathematical exactitude of his comparative tables into believing that their indicated conclusions are equally exact. The technique of comparative analysis may lessen some of the hazards of his work, but it can never exempt him from the vicissitudes of the future or the stubbornness of the stock market itself or the consequences of his own failure – often unavoidable – to learn all the important facts. He must expect to appear wrong often and to be wrong on occasion.

Items for Comparison for Industrial Companies in the Same Field

A. Capitalization
   1. Bonds at par
   2. Preferred stock at market value (number of shares x market price)
   3. Common stock at market value (number of shares x market price)
   4. Total Capitalization (1 + 2 + 3)
   5. Ratio of Bonds to Capitalization (#1/#4)
   6. Ratio of aggregate market value of common to capitalization (#3/#4)

B. Income Account (most recent year)
   7. Gross Sales
   8. Depreciation
   9. Net available for bond interest
   10. Bond Interest
   11. Preferred dividend requirements

12. Balance for common
13. Margin of profit (#9/#7)
14. % earned on total capitalization (#9/#4)

C. Calculations

15. Number of times interest charges earned
16. Earned on common, per share
17. Earned on common, % of market price
18. Ratio of gross to aggregate market value of common

D. Seven Year Average

19. Number of times interest charges earned
20. Earned on common stock per share
21. Earned on common stock, % of current market price

E. Trend Figure

22. Earned per share of common stock each year for the past seven years

F. Dividends

23. Dividend rate on common
24. Dividend yield on common

G. Balance Sheet

25. Cash assets
26. Receivables
27. Inventories
28. Total current assets
29. Total current liabilities
30. Notes payable
31. Net current assets
32. Ratio of current assets to current liabilities
33. Ratio of receivables to sales
34. Ratio of inventory to sales
35. Net tangible assets available for total capitalization
36. Net tangible asset value of common per share (deducting all prior obligations)

H. Supplementary Data

37. Physical output: Number of units; receipts per unit; cost per unit; profit per unit; total capitalization per unit; common stock valuation per unit.

38. Miscellaneous: Number of stores opened; sales per store; profit per store; ore reserves; life of mine at current rate of production.

Chapter 50: Discrepancies between Price and Value

Evidently the processes by which the securities market arrives at its appraisals are frequently7 illogical and erroneous. These processes are psychological, for they go on in the minds of people who buy and sell. The mistakes of the market are thus the mistakes of groups or masses of individuals. Most of them can be traced to one or more of the three basic causes: exaggeration, oversimplification or neglect.

General procedure to be followed by the analyst in uncovering mispriced stocks: Since analysis will lead to a positive conclusion only in the exceptional case, it follows that many securities must be examined before one is found that has real possibilities for the analyst. He makes these discoveries mainly by hard and systematic work. Two broad methods of approach may be used:

1. Comparative analysis of a series of industrial groups. Such studies will give him a fair idea of the standard or usual characteristics of each group and also point out those companies which deviate widely from the modal exhibit.
2. Scrutinizing corporate reports and relating their showing to the market price. A quick glance at a hundred such reports (summary form like Valueline) may reveal between five and then that look interesting from the earnings or current asset standpoint to warrant more intensive study.

Exploiting Aberrations of the Securities Market

1. Cyclical Swings of Prices: The best understood disparities between price and value are those which accompany the recurrent broad swings of the market through boom and depression. It is truism that stocks sell too high in a bull market and too low in a bear market, as this is simply equivalent to saying that any upward or downward movement of prices must finally reach a limit, and since prices do not remain at such limits (or at any other level) permanently, it must turn out in retrospect that prices will have advanced or declined too far.

   Graham suggests an approach to exploit the repeated exaggerations of the general market. (a) Select a diversified list of leading common stocks (b) Determine a normal value for this group by applying a suitable multiplier to average earnings. Multiplier may be equivalent to capitalizing the earnings at say twice the current interest rate on highest grade industrial bonds. (c) Make composite purchase of the list when the shares can be bought at a substantial discount from normal value, say at 2/3 of such value. Or purchases may be made on a scale downwards, beginning say, at 80% of normal value. (d) Sell out such purchases when a price is reached substantially above normal value, say, 1/3 higher, or from 20% to 50% higher on a scale basis.

   This simple idea should not be expected to catch the broad market swings with any high degree of accuracy. A program of this character would also have made far too heavy demands upon human fortitude. But for those who realize its inherent limitations it may

have considerable utility, for at least it is likely on the average to result in purchases at intrinsically attractive levels – which is more than half the battle in common stock investment.

2. Catching the Swings on Marginal basis Impractical: Graham warns that it would be impractical for a speculator to exploit the cyclical swings. Here the speculator is one using margin or short sales instead of purchasing the shares outright. The outright owner can afford to buy too soon and to sell too soon. In fact he must expect to do both and to see the market decline farther after he buys and advance farther after he sells out. But the margin trader is necessarily concerned with immediate results; he swims with the tide, hoping to gage the exact moment when the tide will turn and to reverse his stroke the moment before. In this he rarely succeeds, so that his typical experience is temporary success ending in complete disaster.

   Bond prices tend to swing through cycles in somewhat the same way as stocks but it is doubtful if this can be done with satisfactory results. There are no well defined standards as to when high grade bond prices are cheap or dear corresponding to the earnings ratio test for common stocks. The loss of interest on funds between the time of sale and repurchase is a strong debit factor and in his opinion the net advantage is not sufficient to warrant incurring the psychological dangers that inhere in any placing of emphasis by the investor upon market movements.

3. Opportunities in Secondary or Little known Issues: Leading common stocks are overvalued or undervalued only at certain points in the stock market cycle, the large field of "non-representative" or "secondary" issues is likely to yield instances of undervaluation at all times. When the market leaders are cheap, some of the less prominent common stocks are likely to be a good deal cheaper. It is probably a matter for individual preference whether the investor should purchase an outstanding issue like GM at about 50% of its conservative valuation or a less prominent stock at about 25% of such value.

   There is indeed enough sound sense and selective judgment in the market's activities to create on most occasions some degree of correspondence between market price and ascertainable or intrinsic value. When we are dealing with something as elusive and non-mathematical as the evaluation of future prospects, we are generally led to accept the market's verdict as better than anything the analyst can arrive at. But on enough occasions to keep the analyst busy, the emotions of the stock market carry it in either direction beyond the limits of sound judgment.

   During the intermediate period, when average prices show no definite signs of being either too low or too high, common stocks may usually be found that seem definitely undervalued on a statistical basis. These show a high current and average earnings in relation to market price or make a reasonable satisfactory exhibit of earnings and sell at a low price in relation to net current asset value. Obviously such companies will not be large and well known, or else the trend of earnings will not have been encouraging.

   The main drawback of a typical smaller sized company is its vulnerability to a sudden and perhaps permanent loss of its earnings power. Such adverse developments occur in a larger proportion of cases in this group than among the larger enterprises.

Most investors would try to locate the fast growing small company and will buy their shares at a fairly high price rather than make commitments in a diversified group of bargain issues with only ordinary prospects. Graham's own experience suggests the later technique. One major caveat is that such commitments are avoided at times when the general market is statistically very high.

Market behavior of Standard and Nonstandard Issues – Standard or leading issues almost always respond rapidly to changes in their reported profits – so much so that they tend regularly to exaggerate marketwise the significance of year to year fluctuations in earnings. The action of less familiar issues depends largely upon what attitude is taken towards them by professional market operators. If interest is lacking, the price may lag far behind the statistical showing. If interest is attracted to the issue, the price will respond in extreme fashion to changes in the company's exhibit.

When the general market appears dangerously high to the analyst, he must be hesitant about recommending unfamiliar common stocks, even though they may seem to be of the bargain type. A severe decline in the general market will affect all the stock prices adversely, and the less active issues may prove especially vulnerable to the effects of necessitous selling.

4. Market Exaggerations Due to Factors Other than Changes in Earnings: The inveterate tendency of the stock market to exaggerate extends to factors other than changes in earnings. Overemphasis is laid upon such matters as dividend changes, stock split-ups, mergers and segregations.
   - Dividend Changes: An increase in cash dividend is a favorable development, but it is absurd to add $20 to the price of a stock just because the dividend rate is advanced from $5 to $6 annually. The buyer is paying out in advance all the additional dividends that he will receive at the new rate over the next 20 years.
   - Mergers and Segregations: Wall Street becomes easily enthusiastic over mergers and just as ebullient over segregations, which are the exact opposite. The exaggerated response made by the stock market to developments that seem relatively unimportant in themselves is readily explained in terms of the psychology of the speculator. He wants "action" first of all; and he is willing to contribute to this action if he can be given any pretext for bullish excitement. (Whether through hypocrisy or self-deception, brokerage house customers generally refuse to admit they are merely gambling with ticker quotations and insist upon some ostensible reason for their purchases.) The whole thing would be childish if it were not so vicious.
   - Litigation: A lawsuit of any significance casts a damper on the securities affected, and the extent of the decline may be out of all proportion to the merits of the case. Developments of this kind may offer real opportunities to the analyst, though of course they are of a specialized nature. Situations involving litigation frequently permit the analyst to pursue to advantage his quantitative approach in contrast with the qualitative attitude of security holders in general.
5. Undervalued Investment Issues: Undervalued bonds and preferred stocks of investment caliber may be discovered in any period by means of assiduous research. In many cases the low price of a bond or preferred stock is due to a poor market, which in turn results

from the small size of the issue, but this very small size may make for greater inherent security. At times some specific development greatly strengthens the position of a senior issue, but the price is slow to reflect this improvement, and thus a bargain situation is created.

6. Price-Value Discrepancies in Receiverships: In cases where substantial values are ultimately realized out of a receivership, the senior securities will be found to have sold at much too low a price. This has two consequences. The investor is strongly advised against buying at investment levels any securities of a company likely to fall into financial difficulties; it also suggests that after these difficulties have arisen they may produce attractive analytical opportunities. This holds most promise in cases where liquidation or a sale to outside interests results ultimately in a cash distribution or its equivalent.

   Certain price patterns are likely to be followed during receivership or bankruptcy proceedings, especially if they are protracted. In the first place, there is often a tendency for stock issues to sell too high, not only in relation to the price of the bond issues but also absolutely i.e. in relation to the probable ultimate value. This is due to the incidence of speculative interest, which is attracted by a seemingly low price range. In the case of senior issues, popular interest steadily decreases, and the price tends to decline accordingly, as the proceedings wear on. Consequently, the lowest price levels are likely to be reached a short time before a reorganization plan is ready to be announced. A profitable field of analytical activity should be found therefore in keeping in close touch with such situations, endeavoring to discover securities that appear to be selling far under their intrinsic value and to determine approximately the best time for making a commitment in them.

Chapter 51: Discrepancies between Price and Value (Continued)

The practical distinction between leading and secondary common stocks have their counterpart in the field of senior securities as between seasoned and unseasoned issues. A seasoned issue may be defined as an issue of a company long and favorably known to the investment public.

7. Price Inertia of Seasoned Issues: The price of seasoned issues is often maintained despite a considerable weakening of their investment position. This is due to inertial and lack of penetration of the typical investor. He buys on reputation rather than by analysis and he holds tenaciously to what he has bought. Hence holders of long established issues do not sell them readily, and even a small decline in price attracts buyers long familiar with the security.

8. Vulnerability of Unseasoned Issues: Unseasoned issues are very sensitive to adverse developments of any nature. Hence they often fall to prices far lower than seem to be warranted by their statistical exhibit. This vulnerability of unseasoned issues gives rise to the practical conclusion that it is unwise to buy a new unseasoned bond or preferred stock for straight investment. He should favor such issues only when they can be bought at a frankly speculative price.

9. Discrepancies in Comparative Prices: It seems much simpler process to decide than issue A is preferable to issue B than to determine that issue A is an attractive purchase in its own right. Graham cautions against any quick acceptance of a purely quantitative superiority. The future is often no respecter of statistical data.

Chapter 52: Market Analysis and Security Analysis

Graham addresses the question of market analysis – forecasting security prices – and the extent to which it may seriously be considered as a substitute for or as a supplement to security analysis. If one can dependably foretell the movement of stock prices without any reference to the underlying values, then it would be more profitable to master this technique rather than to devote painstaking efforts to forming conclusions about intrinsic value. Two kinds of market analysis: (1) Predictions exclusively based on the past action of the stock market – technical analysis (2) Predictions based on all sorts of economic factors i.e. business conditions, money rates, political outlook – Macro forecasts.

1. Technical Analysis: The implications of using past price movements to foretell the future can be considered to see if this is viable approach.
    a. Chart reading cannot possibly be a science – If it were a science, its conclusions would be as a rule dependable. In that case everybody could predict tomorrow's or next week's price changes, and hence everyone could make money continuously by buying and selling at the right time. This is patently impossible.
    b. It has not proved itself in the past to be a dependable method of making profits in the stock market – Because of the above fact it follows that there is no generally known method of chart reading that has been continuously successful for a long period of time. If it were known, it would be speedily adopted by numberless traders.
    c. Its theoretical basis rests upon faulty logic or else upon mere assertion. You may learn a great deal about the technical position of a stock by studying its chart, and yet you may not learn enough to permit you to operate profitably in the issue. Security analysis and market analysis are alike, in the fact that they deal with data that are not conclusive as to the future. The difference, is that the securities analyst can protect himself by a margin of safety that is denied to the market analyst.

       Undoubtedly, there are times when the behavior of the market, as revealed on the charts, carries a definite and trustworthy meaning of particular value to those who are skilled in its interpretation. If reliance on chart indications were confined to those really convincing cases, a more positive argument could be made in favor of technical study. Buy such precise signals seem to occur only at wide intervals, and in the meantime human impatience plus the exigencies of the chart reader's profession impel him to draw more frequent conclusions from less convincing data.
    d. It vogue is due to certain advantages it possesses over haphazard speculation, but these advantages tend to diminish as the number of chart students increases.

       The appeal of the chart reading to the stock market trader is something like that of a patent medicine to an incurable invalid. The stock speculator does suffer, in fact, from a well-neigh incurable ailment. The cure he seeks, however, is not abstinence from speculation but profits. Despite all experience, he persuades

himself that these can be made and retained; he grasps greedily and uncritically at every plausible means to this end.

The plausibility of chart reading derives largely from its insistence on the sound gambling maxim that losses should be cut short and profits allowed to run. This principle usually prevents sudden large losses, and at times it permits a large profit to be taken. The results are likely to be better, therefore, than those produced by haphazard following of market tips. Traders, noticing this advantage, are certain that by developing the technique of chart reading further they will so increase the reliability as to assure themselves continued profits.

The more intelligent chart students recognize these theoretical weaknesses, and take the view that market forecasting is an art that requires talent, judgment, intuition and other personal qualities. They admit that no rules of procedure can be laid down, the automatic following of which will insure success.

2. Macro forecasting: Mechanical forecasting systems sound vaguely plausible on the basis of a priori reasoning and rely for its convincingness on the fact that it has worked for a number of years past. The necessary weakness of all these systems lies in the time element. It is safe and easy to prophesy, for example, that a period of high interest rates will lead to a sharp decline in the market. The question is "How soon?" There is no scientific way of answering this question. They are not truly scientific, because there is no convincing reasoning to support them and because, furthermore, really scientific (entirely dependable) forecasting in the economic field is a logical impossibility.

Disadvantages of Market Analysis as Compared with Security Analysis: Security analysis is also an art, and it, too, will not yield satisfactory results unless the analyst has ability as well as knowledge. The security analyst has several advantages over the market analyst:

1. In security analysis the prime stress is laid upon protection against untoward events. We obtain this protection by insisting upon margins of safety. The underlying idea is that even if the security turns out to be less attractive than it appeared, the commitment might still prove a satisfactory one. In market analysis there are no margins of safety, you are either right or wrong, and, if you are wrong, you lose money.
2. Less trading involving less transaction costs.
3. Market analysis is essentially a battle of wits. Security analysis seeks to buy from someone who has not made an equally painstaking analysis of its value. Securities analyst examines a far larger list of securities than does the market analyst. He selects the exceptional cases in which the market price falls far short of intrinsic value.

   Market analysis seems easier than security analysis, and its rewards may be realized much more quickly. For these very reasons, it is likely to prove more disappointing in the long run. There are no dependable ways of making money easily and quickly, either in Wall Street or anywhere else.

A good part of the analysis and advice supplied rests upon the near term business prospects of the company considered. It is assumed that, if the outlook favors increased earnings, the issue should be bought in the expectations of a higher price when the larger profits are actually

reported. In this reasoning, security analysis and market analysis are made to coincide. The market prospect is thought to be identical with the business prospect.

- This theory of buying stocks chiefly upon the basis of their immediate outlook makes the selection of speculative securities entirely too simple a matter.
- Its weakness lies in the fact that the current market price already takes into account the consensus of opinion as to future prospects. When a stock is recommended for the reason that next year's earnings are expected to show improvement, a twofold hazard is involved. First, the forecast of next year's results may prove incorrect; Second, even if correct, it may have been discounted or even over discounted in the current price.
- If markets generally reflected only this year's earnings, then a good estimate of next year's results would be of inestimable value. But the premise is not correct.

Graham expresses skepticism about the ability of analyst to forecast the market behavior of individual issues over the near term future. More satisfactory results are to be obtained in the following

1. The selection of standard senior issues that meet exacting tests of safety.
2. The discovery of senior issues that merit an investment rating but that also have opportunities of an appreciable enhancement in value.
3. The discovery of common stocks, or speculative senior issues, that appear to be selling at far less than their intrinsic value.
4. The determination of definite price discrepancies existing between related securities, which situations may justify making exchanges or initiating hedging or arbitrage operations.

Investment Policy for the Small Investor

1. Investment for Income: The only sensible investment for safety and accumulated income, under current conditions, is in US Savings bonds.
2. Investment for Profit: Four approaches
    a. Purchase of representative common stocks when the market level is clearly low as judged by objective, long term standards. This policy requires patience and courage and is by no means free from the possibility of grave miscalculation. Over long period it will show good results.
    b. Purchase of individual issues with special growth possibilities when these can be obtained at reasonable prices in relation to actual accomplishment. Where growth is generally expected, the price is rarely reasonable.
    c. Purchase of well secured privileged senior issues. A combination of really adequate security with a promising conversion or similar right is a rare but by no means unknown phenomenon. A policy of care selection in this field should bring good results, provided the investor has the patience and persistence needed to find his opportunities.
    d. Purchase of securities selling well below intrinsic value. Intrinsic value takes into account not only past earnings and liquid asset values but also future earning

power, conservatively estimated – in other words, qualitative as well as quantitative elements. These may be found in bonds, preferred stocks and common stocks.

3. Speculation: The investor is privileged to step out of his role and become a speculator. He is also privileged to regret his action afterwards.
    a. Buying stock in new and virtually new ventures. Graham condemns this unhesitatingly and with emphasis.
    b. Trading the market. It is fortunate for Wall Street that a small minority of people can trade successfully and that many others think they can. Graham thinks that, regardless of preparation and method, success in trading is either accidental and impermanent or else due to highly uncommon talent. Hence the vast majority of stock traders are inevitably doomed to failure. He does not expect this conclusion to have much effect on the public.
    c. Purchase of growth stocks at generous prices. He considers this approach to be inherently dangerous but the changes of individual success are much brighter here than in the other forms of speculation and this is a better field for the exercise of foresight, judgment and moderation.

Quotes

The arguments for and against ultimate inflation are both unusually weighty, and we must decline to choose between them.

It was little short of nonsense for the stock market to say in 1937 that General Electric Company was worth $1,870,000,000 and almost precisely a year later that it was worth only $784,000,000. Certainly nothing had happened within twelve months' time to destroy more than half the value of this powerful enterprise, nor did investors even pretend to claim that the falling off in earnings from 1937 to 1938 had any permanent significance for the future of the company. General Electric sold at 64 7/8 because the public was in an optimistic frame of mind and at 27 1/4 because the same people were pessimistic. To speak of these prices as representing "investment values" or the "appraisal of investors" is to do violence either to the English language or to common sense, or both.

The essential point is that security analysis does not seek to determine exactly what the intrinsic value of a given security is. It needs only to establish either that the value is adequate—e.g., to protect a bond or to justify a stock purchase—or else that the value is considerably higher or considerably lower than the market price. For such purposes an indefinite and approximate measure of the intrinsic value may be sufficient.

It would follow that even a very indefinite idea of the intrinsic value may still justify a conclusion if the current price falls far outside either the maximum or minimum appraisal.

Trading in the market, forecasting next year's results for various businesses, selecting the best media for long-term expansion—all these have a useful place in Wall Street. But we think that the interests of investors and of Wall Street as an institution would be better served if operations based primarily on these factors were called by some other name than investment.

It is customary to refer with great respect to the "bloodless verdict of the market place," as though it represented invariably the composite judgment of countless shrewd, informed and calculating minds. Very frequently, however, these appraisals are based on mob psychology, on faulty reasoning, and on the most superficial examination of inadequate information. The analyst, on his side, is usually unable to apply his technique effectively to correcting or taking advantage of these popular errors, for the reason that surrounding conditions change so rapidly that his own conclusions may become inapplicable before he can profit by them.

It is the duty of management to disclose the truth and the whole truth about the results of each period; it is the function of the stockholders to deduce the "normal earning power" of their company by averaging out the earnings of prosperity and depression. Manipulation of the reported earnings by the management even for the desirable purpose of maintaining them on

an even keel is objectionable none the less because it may too readily lead to manipulation for more sinister reasons.

The sale of securities is not a profession but a business and is necessarily carried on as such. Although in the typical transaction it is to the advantage of the seller to give the buyer full value and satisfaction, conditions may arise in which their interests are in serious conflict. Hence it is impracticable, and in a sense unfair, to require investment banking houses to act as impartial advisers to buyers of securities; and, broadly speaking, it is unwise for the investor to rely primarily upon the advice of sellers of securities.

In order to make their fees appear less burdensome, some of the private investment consultants endeavor to forecast the general course of the bond market and to advise their clients as to when to buy or sell. It is doubtful if trading in bonds, to catch the market swings, can be carried on successfully by the investor. If the course of the bond market can be predicted, it should be possible to predict that of the stock market as well, and there would be undoubted technical advantages in trading in stocks rather than in bonds. We are skeptical of the ability of any paid agency to provide reliable forecasts of the market action of either bonds or stocks. Furthermore we are convinced that any combined effort to advise upon the choice of individual high-grade investments and upon the course of bond prices is fundamentally illogical and confusing.