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Industrial and Financial Investigations

Arthur Andersen

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BUSH TERMINAL BUILDING
130 WEST 42nd STREET, NEW YORK

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(Paper presented at the First Western Regional Conference, held in Chicago, February 7-8.)

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INDUSTRIAL AND FINANCIAL INVESTIGATIONS

NOTE. This article was presented as a paper at the First Western Regional Conference at Chicago held on February 7 and 8, 1924. Some of the other material presented at the Conference will be published in later Official Publications.

The subject of Industrial and Financial Investigations is an intensely interesting one to me, because I believe that anyone who is engaged in that kind of work is pioneering. Some ten years ago I had the idea that accounting was not in itself an end, but rather was one of the means to an end, and that the sooner public accountants developed that bigger and broader viewpoint, the sooner they would place their services on a professional basis.

I incline to think of the balance sheet and the profit and loss accounts as the resting place of completed transactions. To be sure, the recorded transactions of past experience should always be a guide to the future; yet they should have only a relative value in guiding one in the future. They are not altogether complete or conclusive.

That there are other methods of mapping the future has become very evident in the past few years. Within the past ten years you have witnessed an increasing responsibility upon the part of investment bankers with respect to securities which they buy and offer to the public. Investment bankers today are infinitely more careful than they were ten years ago, not only as regards the type of securities which they buy and sell, but also as regards the probable future history of each issue. You can see throughout the United States a decided tendency toward financing businesses on a long term basis, and with that a tendency to assure the public—as nearly as the future may be pictured—that principal will be repaid and that interest obligations will be met as and when they fall due.

One of the more recent methods used in safeguarding the future of a security issue is through the Industrial and Financial Investigation preliminary to refinancing. Of course there are many specific purposes for which Industrial and Financial Investigations may be made, but I propose to address myself to one only —and that has to do with safeguarding the purchase and sale of securities in connection with the financing or refinancing of a business.

ELEMENTS OF BUSINESS

An Industrial Investigation is the study and analysis of the three elements of business, in their relationship to each other. These three elements are:

1. The equipment of business, which includes buildings, machinery, personnel, product.

2. The mechanism for controlling and directing the use of this equipment, which is broadly termed Management.

3. The conditions under which this equipment must be used by Management in order to result in earnings. These conditions are competition, markets, location, demand, transportation, general prosperity or depression, etc.

Management—The Real Security Behind Stock and Bond Issues

Anyone who has made a study of business realizes that the real security behind any issue is not the cash in the bank, not the accounts receivable, not the inventories, not the plant, or any of these tangible assets. But the real security that is behind any property is the more intangible factor of Management. In other words, that type of management which permits or causes earnings to flow from the use of the assets.

So, when you are financing for a period of years, it is altogether important that the principal safeguards should be taken at the outset. In other words, if a situation is unsound from a managerial point of view at the outset, you have introduced the largest possible risk that you can at the very beginning, and unless that is remedied the investment banker is infinitely better off without that issue.

While Management is always the most vital single element in business, it assumes even greater importance when re-financing is contemplated, because within the loan period of ten, fifteen or twenty years the conditions of any given business may change greatly. Patents and copyrights may expire; public favor may change; new inventions in that or in other lines may change many external conditions; local labor, transportation, sources of material supply may be subject to wide variations. The most striking example, of course, would be that of a business engaged in the manufacture and sale of a specialty or luxury. That introduces all the risk and hazard which is possible.

If Management does not compensate for these changing conditions by changing the equipment or policies of the business, profits may disappear. Yet even though Management is the principal point to be studied, this analysis will be incomplete unless all of the facts of equipment and conditions are also known, since these facts set up the standards for judging the effectiveness and the requirements of Management.

Limitations of Audited Statements and Accounting Analysis

Now, there is very little of this type of analysis which would be brought out in the ordinary, every-day audit or accounting analysis, and I therefore believe that the day should be past when securities are bought and sold on the basis of audited statements and nothing else. There are exceptions to that, of course, for you have other questions—such as magnitude—but you have a right to hold your breath even though it be the United States Steel Corporation or General Motors which may be involved in a piece of financing.

The effectiveness of Management in the past may be partially gauged from the results shown by correctly audited statements and statistics, but even here conditions must be known, for profits sometimes flow from patent monopolies, from distribution monopolies, or from favorable labor and material markets, in spite of laxness in Management.

Present conditions and the trends of conditions, however, are infinitely more important than the balance sheet and the profit and loss account. Unfortunately these more vital points are the more intangible points, it requiring experience, knowledge and practiced analysis to draw conclusions of the trend of public favor, the trends of the industry as a whole, the trend of the economic cycle, the status of the company in the industry, the arrangement or organization and personnel, etc.

There is no definite and set routine for the investigation. There can be no method of procedure according to the yardstick. The element of judgment is the largest single factor in it. Yet, as a starting point, it is well to consider the proposed financing. Has this been forced upon the company by past ineffectiveness of management or is it a demonstration of good management in providing for future expansion or protection?

Conditions That Lead to Financing and Refinancing

This brings up the question as to just what conditions may lead to financing or refinancing. First of all there is the financing of an entirely new business, introducing probably all the elements of risk which attach to business. Yet if you eliminate faith and risk and hazard from business, you have no business. Whether it is a new business or one that is to be expanded and developed, the very life of business is the risk and hazard which is injected into it. Nevertheless, the financing of such a new business is not the part of the investment banker. Risk is so pronounced that the financing no longer has the aspects of investment, but becomes speculation.

Secondly, there is financing to refund bank loans, where it is unwise from a credit point of view or a financial point of view to have the company go along and carry as much in the way of short maturity obligations as it may have. Of course there was a great deal of that type of financing following the deflation period of 1920.

Third, to refund prior issues—issues which have been out for many years and are about to fall due, and are therefore required to be refunded; yet which cannot be paid off because the company has in the meantime developed to the point where it has probably absorbed that capital and needs some more also.

Fourth, to obtain additional working capital, presumed to be required in connection with the development and growth of the business.

Fifth, in connection with the acquisition of other companies, in order to tie into a particular situation other units, to create a more balanced unit as a whole, which would make for lower costs and larger profits. Right in this connection it is probably safe to predict that in the next ten or fifteen years we are going to see combinations and mergers on a far greater scale than any of us can now realize. American industry is absolutely headed in the direction of organization on the basis of larger manufacturing and distributing units. It is inevitable. It must come.

We have gone along all these years on unlimited natural resources and have wasted millions—yes, billions of dollars—without it making any impression on us; and that, perhaps, has played the largest part in the development of American industry. The future, however, is going to call for a more intensive use of these resources and that is the reason why there will be more opportunities in business in the next ten or fifteen years than there have been in the last ten or fifteen years—but for an entirely different type of man; the *organizer* rather than the inventor.

Sixth, there is financing forced by the familiar frozen inventories. We had quite a jolt in connection with such inventories following the deflation of 1920 and we are going to have other jolts from inventory losses as time goes on. My own feeling is that we will be going through a continuous period of deflation for the next ten, fifteen or twenty years. Probably no wise or prudent business man will have his house in the condition it was in 1920. The bulk of business men have undoubtedly profited by their disastrous experience of that year and inventories will be more carefully guarded than ever before.

There are of course certain types of industry where it is impossible to forecast just what the conditions are going to be. I have in mind particularly the leather industry. My own feeling is that every man in this business is a gambler—not as a matter of choice, but of necessity. He does not know. He buys hides under one set of conditions and passes out leather six months later under an entirely different set of conditions. If the pendulum has swung the right way, he can consider himself lucky.

Seventh, financing in connection with new and additional plant and equipment, implying expansion and frequetly resulting in the necessity for public financing.

Eighth, in connection with the sale of a large interest, where the chief stockholder wishes to retire, and may sell out to other stockholders or may pass on a part of the proprietorship to the public in one way or another, generally through a stock interest.

Ninth, the type of financing very fashionable in the years 1922 and 1923, where reorganization in connection with Section 202 of the Revenue Act permitted the withdrawal of substantial sums of money under a minimum tax.

Tenth, financing for the purpose of placing a large part—not necessarily a major part—in the hands of the public. This is a case of looking ahead to the time when the public will hold large interests in all industries and such financing at this time, in connection with the sale of stock to the public, is often for no other purpose than the creation of a market for the stock.

Eleventh, policy financing. This is the result of the effort of certain interests who may have concentrated their holdings in one business, to sell a portion of their investment to the public and place the proceeds received therefrom in other types of business. The older I become and the more experience I have, the more it is impressed upon me that the placing of all one's eggs in one basket is a fatal mistake. Since the first part of 1923 my attention has been drawn to several striking examples of this sort and the list of disasters is pathetic. The necessity for diversification of investments is one lesson I have drawn from my public accounting experience and I only wish that this lesson might be forcibly impressed on my fellow men.

Thus there may be many reasons for refinancing. Fortunately there are not so many different methods of financing. Just what form any financing will take is dependent upon the internal conditions of the business in conjunction with the general status of the stock and bond markets. Thus 1923 was one of the poorest bond market years in the past decade and many of the smaller bond houses have had considerable difficulty in making ends meet. The period of bond market depression extended for a longer time than had been true at any time within the last ten years. So the market conditions have a very decided influence upon the type of financing which may be resorted to and may even determine whether or not financing should be postponed.

Forms of Financing

The most immediate form of financing is that of bank loans. Next to this form of shortest term financing comes notes or debentures—usually short-term or serial. During the war we were faced with unusually high interest rates and it was folly to finance on a long-term basis. It was too expensive. So there was a flood of short-term financing during that period such as probably none of us will witness again unless, of course, we have another great war.

The various types of bonds which generally fall in the class of mortgage bonds may run for ten, fifteen or twenty years, although recently in connection with public utility financing, thirty-year bonds have been issued. My own feeling is that if you get much beyond twenty years, it is too long a time. It certainly is too long in the case of the average industry. Really a fifteen-year limit on industrial bonds is the most desirable, because the success of the industrials is dependent almost entirely upon the quality of management. To go beyond the fifteen-year limit is gambling on the future management and even within that limit the risk should be minimized by certain specified sinking fund requirements. There should be a substantial reduction of the debt so that even if the time comes when the property must be liquidated to protect the bondholders' interests, they will come out whole. In other words, a straight maturity running for a definite number of years, in the case of an industrial, is in my judgment extremely unsound.

Mediums of Financing

Independent of the necessity for financing and to some extent of the form of financing, there are certain mediums of financing. The first consists of internal financing, in which the new securities are absorbed by present stockholders. This method is used quite frequently, but generally only where there is no market for the company's securities on the outside and where there really is no other means of financing except through the channel of the stockholders.

Secondly, there is financing through the private sale, where there is more or less canvassing and sales effort to place the securities among a selected group.

Third, placing through a small circle of direct stock and bond brokers, where the issue is not underwritten, but where they merely agree to sell the issue if when and as they can, and at a stated rate of commission. That method is resorted to only in such cases where the issue does not measure up to the standards usually set for such issues.

Fourth, the most usual method, of placing the issue with bankers who underwrite it, buy it outright at an agreed price, take all the risk of market conditions, and pass it on to the public.

These forms and mediums of financing have been briefly noted because they have a direct influence on the scope, purpose and form of the Industrial Investigation. At the present time this form of investigation is used chiefly by the investment banker, in connection with underwritten securities. This is true for several reasons, but chiefly because that method of distributing an issue leads to a concentration of responsibility.

Responsibility of Investment Banker

The investment banker has first of all a responsibility to himself. The security purchased is his stock in trade. It is no different than the dry goods handled by Marshall Field & Company or the stock handled by any other retailer or manufacturer. So he must buy goods for which there is a reasonable assurance of ready market and which can be disposed of at a profit.

He has in addition the responsibility of reputation. He must sell goods which stay sold and give entire satisfaction over a period of years. Therefore, the time for him to give serious consideration to the fundamentals upon which the security rests, is before it is sold rather than after. Even if he satisfies himself on this point and places the issue with the public, his responsibility is just beginning. The modern investment banking house which is properly organized and is sincere in its work, has a keen desire, as a matter of definite policy, to everlastingly protect the securities which it has offered to the public. It sees to it that the security is good, not only at the time it is offered, but that it is kept good after it is sold.

These responsibilities to himself and to the public are the major ones. There is also a responsibility to the company being financed. Nothing could react so unfavorably on a company than that its issue should fall down. That would be a boomerang effect which it would take years to live down. So the banker must avoid this danger of failure to finance, even to the point of refusing to undertake the underwriting unless he is reasonably sure the issue can be sold.

This assurance in a way links with the banker's responsibility to the public. If it appears that the investment has ample security back of it, that interest obligations will be met, and that the loan will be retired at maturity, then all responsibility is reasonably covered.

The banker has various means of securing the vital information relative to any company or any issue. His first point of approach on a bond issue is that of security, so an appraisal gives him in part the assurance of ample tangible assets underlying the loan. From the audit he can secure a correct record of past operations which serves as a partial basis for analysis and also permits making certain representations to the public with respect to the earning power of the business, assets and so forth. From the legal report he is able to properly set up the deal from its legal aspects, so that there will be no technical loopholes, thus protecting the security holders from this viewpoint.

Industrial Investigation Superior to the Audit

While the above investigations are more or less usual and routine and have often served as the bankers' only protection, they are more and more being supplemented by the industrial investigation. It is this latter analysis which scrutinizes those more intangible elements of personnel, conditions, policies, status of the company in the industry, and generally the broader questions which in the end lead to earnings, more directly than do the very tangible elements of plant and equipment. It is this analysis which really determines whether it is a good issue or a poor issue. My personal judgment is that in the matter of final analysis, the audit findings may not have nearly the weight of the findings of the industrial investigation. The audit deals with history—but the industrial analysis deals with fundamentals and so may be used in forecasting the future.

Elements of the Industrial Investigation

Let me briefly comment upon the various elements which enter into such an analysis and you will see why I attach such importance to its determination of the worth of an issue.

First, it deals with inception and capitalization. It points out the conditions under which the business was founded, its operating history, and how and the why of its growth in capitalization. You can get a tremendous amount of information from a statement of this sort. One which clearly reflects cash and more cash going in—unless perhaps there is a surplus which has never been capitalized, and which is seldom the case—would indicate immediately that something is wrong somewhere. If, on the other hand, its net worth has been built up out of earnings over a period of years, there is a distinctly favorable reaction, if this result is in line with some other important elements.

I always like to see net worth built up from earnings, because men and business may both be judged (on the financial side) by what they have saved rather than by what they have earned. This is dealing with the fundamentals of life. Not that a man or a business should be niggardly or parsimonious in his dealings, for every business and every individual must spend in order to get certain returns. But there must be a sense of values and a sense of balance and this is often indicated by the relationship between earnings and savings.

The habits and instincts which are reflected as earned net worth are formed as the result of having developed the saving idea. So we may reasonably judge a man or a business, financially, by what he has saved. That is one of the fundamental things about an industrial investigation, because one cannot be one thing for one purpose and another thing for another purpose, if one is acting naturally, as most of us have to be as the average over a period of time.

As a second point, the investigation deals with products. Do they class as luxuries or necessities? Is their usage dependent upon the status of some other industry? Are they monopolistic or are they in a highly competitive field? Is distribution limited by transportation costs on a material of large weight and bulk but low value? Is their usage universal or is there a very limited market? These and other questions must be satisfactorily answered and then the situation as regards products must be correlated and analyzed in combination with the past history of the company and the probable trends of outside conditions.

Third, what are the facts of properties and operating conditions? It must be known what properties are owned and leased; their age and condition, adaptability to this business, convertibility to other businesses in the event of sale or liquidation; location with respect to raw material, labor, transportation and product markets. Is the business one of merchandising, assembling or manufacturing, and how does this affect the requirements of equipment? Have there been operating or labor difficulties in the past and what steps have been taken to prevent recurrence of such conditions? Such are the factors which set up standards for judging the past and future effectiveness of management.

Fourth, personnel and control. That is another interesting study. For if the success of any business is dependent upon Management and Management is a product of men, then the real story of any business goes back to the men who have been, are, and may be in control of the business. The greatest asset of any business is its man power. For that reason we like to know much about the directors, executives and sub-executives of the company. Not only do we want his name, position, age, salary, length of service with the company, percentage of stock ownership; but also we want his previous working experience, his reputation among fellow workers, his personality, his instincts and his hobbies. It is important also to know whether or not in connection with his compensation he has a bonus, profit-sharing or percentage arrangement with the company.

Suppose you should study the personnel data of a company and find that two men drew $25,000 a year, while the next highest man drew only $6,000; and suppose that each of the $25,000 men was away six months of the year—on vacation. Suppose, as in another case, you found one official drawing $40,000 a year while the next highest drew $12,000. Are not these factors significant enough to lead to a very close study of the entire personnel and future policies of control? Furthermore, it should be carefully noted whether the executive positions are filled by men, whose chief claim to ability is the fact that they are relatives or descendants of the founders of the business. With such a personnel policy the incentive to achievement, real interest and advancement is stifled and the development of executives within the organization ceases.

Consider the element of stock ownership. If the management is in the hands of people who have no particular financial interest, the situation may prove fundamentally weak. It has been true from the beginning of time that the easiest way to reach a man in connection with financial transactions is through his pocket. So it is logical that if a business is well managed and reaping good profits, you will generally find it to be under the direct management of the owners of the business. If, on the other hand, 85 per cent of the stock is held by an estate and only 15 per cent by those actively running the business, there is a fundamental weakness which should be corrected before financing is warranted.

Effective Use of Personnel

Even though personnel and control may be satisfactory, there is the further question of the effective use of this personnel. This may be called Organization. From the investigation you wish to know whether there is a definite organization plan, whether each man knows his duties, whether the responsibility placed on any man is equaled by the necessary authority; whether the various sections of the business are properly correlated and whether a man's abilities are being fully used by placing him in the proper position. It is not unusual to find in the general manager's chair a man who would be far more effective as sales manager. It is not unusual to find a works manager who would make an excellent general manager. If the organization plan showed three general managers, or if it showed both a sales manager and a manager of sales, or if by no conceivable effort any organization plan could be outlined, would you not question the effective management of the business regardless of excellent individual personnel? Naturally, the larger the business, the more important becomes this question of organization.

Proper Policies Are Vital

The policies of the management with respect to sales, advertising, service, credits and collections and purchasing are extremely vital, not only by reason of their direct effect on the business but also because it is in these points that the company has its direct contact with the public and the trade. Thus the public feels the company's sales policies in the matter of prices and stability of prices, and in the completeness of its line. The dealers or jobbers judge the business in part by whether the policy is that of forcing large quantities onto their shelves regardless of general price or demand conditions. Both dealers and public know whether the company stands behind its product, maintaining a quality policy rather than a price policy. More internal are the questions of whether sales are widely distributed or whether the company is progressive in developing an improved product, thus maintaining a freshness of demand.

In the matter of advertising the public directly feels the effect of a national program, while the dealers are concerned with the matter of co-operation in local advertising. Vital also are the policies determining the choice of advertising mediums and the "spasmodic" or "continuous" character of publicity. Internally there is the question of definite control over advertising expenditures, whether as a definite percentage of expected sales or on the basis of a budget.

Service is always a matter of definite policy. Some companies steadily lose their standing because of lack of service in disposing of their product or lack of accommodation to customers and dealers. Other companies have built their reputation on prompt deliveries, prompt and equitable adjustments and prompt and efficient service repairs. Very often a good service policy is the saving grace, enabling a business to carry on in the face of trying conditions, for it has built and preserved good-will.

The policies maintained in the matter of credits and collections have an importance difficult to over-emphasize. Thus some businesses have been built up on the "cash and carry" policy. Others are notable for their instalment or long credit sales. Very striking are the matters of personnel attitude in handling credit or of making collections. Yet whatever the broader policies of the business it is vital that there be a close co-ordination of the credit and collections departments; that policies once set should be adhered to rather than the subject of whim or "special" cases; and that collections be prompt within the limits set, rather than so lax as to lead to excessive bad debt losses. These points often indicate the relationship between the company and its customers.

On the other hand, the purchasing methods and policies indicate the relationship between the company and its suppliers. Broadly, of course, the purchasing may be of the speculative or of the protective type—if the former, then it is not in accord with the basic principles of business. In more detail we have the questions of prompt payment, of the attitude on price, of the means adopted for insuring deliveries when and as specified, and the personal attitude of the purchasing agent.

These are some of the points which are given close scrutiny by the Industrial Investigation, for not only do they serve to explain many of the facts reflected in the accounting statements but also to illuminate the qualities of management and personnel, forming a distinct basis for judging the future attitude of the company under normal or abnormal conditions.

Records and Control Systems

Supplementing all else, and corresponding to a large degree with the nervous system of the human body, are the records and control systems of the business. They are the means whereby Management preserves a correct and complete record of past actions and results, and they are the means for carrying out present operations and policies. It is essential that records and systems be complete, effective, clearly understood, not cumbersome or wasteful of personnel. All of this will be revealed by the Industrial Investigation, and from this analysis one can judge whether management is alive to modern business methods, has studied its own necessities, and is properly equipped.

If records are complete and well kept, there will be little difficulty in making an analysis of sales and earnings. As to sales—it is often desirable to know more than merely the total values by years. If the geographical location of sales is known and currently studied, it may be possible to develop hitherto unprofitable territories. If sales by class of product are studied, it may be found expedient to push some lines and drop others. If earnings are analyzed in the same classification as sales an untold wealth of information is available to the management. Too often Management does not use the information which is available and the results of an industrial survey are often eye-opening to the executives.

Analysis of the balance sheet must not be neglected. Often the balance sheet comments of an audit are routine and perfunctory. From the industrial viewpoint, however, the figures assume a new significance. Thus there would be a specific inquiry into the bad debt policy; into credit terms; into the relation of the balance of uncollected accounts to sales; a careful segregation of officers' and stockholders' accounts, that are not customers' accounts, from other accounts or notes receivable; and probably an inquiry into the channels of large sales.

Perhaps more than the usual attention will be paid to an analysis of surplus—from the company's inception if this is possible—while all reserves will be closely scrutinized. Current liabilities will be closely inspected as will current assets in general, to determine just how current they are. Contingent liabilities must be clearly defined, to insure that they are contingent rather than actual. Deferred charges and intangibles are subject to more than the usual analysis, while investments in other companies need a sound assurance as to their value. In other words, the usual balance sheet is subject to the closest possible scrutiny and analysis and no values can be taken for granted.

Emphasis of Industrial Investigation on Inventory and Plant Accounts

It is, however, upon the items of inventory and plant accounts that the industrial investigation concentrates. These principal assets are vital where financing is proposed. The plant accounts have a tremendous bearing upon the elements of surplus and bond security. The inventory accounts bear directly upon the questions of management and earnings.

The subject of inventories warrants considerable comment. Frankly, I believe that accountants generally are not capable of verifying inventories. Their training is such that they know very little about the subject. Their conception of the responsibility involved has been very limited. Usually it is considered sufficient to check a few prices, check a few extensions, check a few footings, then ask the management for an inventory certificate. If later some trouble develops the certificate forms something of an alibi or bomb-proof shelter.

Then consider the attitude of the industrial engineer on inventories: to him the elements of inventory balance, inventory control, basic valuations, obsolescence and condition are fully as important as the elements of correct quantities and strict pricing. In our own organization we have come more and more to depend upon the industrial engineers for the various elements of inventory verification, even in connection with annual audits.

Analysis of Inventory

An inventory should be analyzed from the point of view of the relation of unfilled sales orders; of uncompleted production schedules; of the peaks and valleys of production, and of the effect on current liabilities, working capital and notes payable. For example, it may be that the financing is being applied at the low point of operations, which would result in satisfactory ratios. But when the peak of operations occurs the situation will become entirely different. Therefore, the analysis of the inventory should be made from the point of view of balance sheet effect at the peak and not at the liquidation point.

The inventory analysis must also include the effect of purchase commitments. To me, from a going-business point of view, the inventory is made up of goods on hand, in transit and on order. You may have just as much loss on goods which you have contracted to buy as you will on goods actually on hand. Since it is a basic law of business accounting that profits shall not be anticipated and all possible losses provided for, the effect on the inventory situation is actual. I might even go so far as to say that in this respect our present income tax law should be modified, so that a manufacturer would have the right to take a loss on purchase commitments just as he has a right to take a loss on his inventory.

The accountants' viewpoint on plant accounts is comparable to his viewpoint on inventories. Verifications are liable to be made in a mechanical way, largely for the purpose of determining whether or not there are charges in the property account which should have gone to maintenance or to the depreciation reserve. Usually small attention has been paid to retirements. That is, the accounting analysis has been rather from the point of view of effect upon the profit and loss account than from the point of view of correctly stating the plant accounts.

In the event of financing, appraisals are usually applied as a basis for determining the plant values. The appraisal value is the present depreciated reproductive value—that is, the economic value —as compared to the accounting values of depreciated cost. Thus two distinct bases of valuation are set up, which I may designate as the economic and the monetary. That is analogous to the market and cost bases for inventory pricing.

I do not at this time wish to enter into a lengthy discussion of the subject of plant valuations for the purpose of financing, yet perhaps a few of the basic points will serve as showing the analysis necessary in an industrial investigation; we have had a war inflation of inventories and a war inflation of plant accounts; we also had a war inflation of capitalization in many instances. Inventories have been restated and tremendous losses incurred, yet in only rare instances have the plant accounts been restated, and in no case have the plant accounts been placed upon what may be termed a "depreciated normal post-war replacement cost" basis. Therefore at this time many businesses are carrying inflated values in their balance sheets.

Yet is that attitude economically or ethically sound? What is going to happen in these cases where there has been a war inflation of capitalization? Is it correct to show the present-day value as being the real asset value back of the securities? For example, picture this situation—of an entirely new plant built at the peak prices of 1920, which in 1930 may show on the balance sheet at a depreciated cost value of $5,000,000. Yet in 1930 the actual depreciated replacement cost may be only $3,000,000. Can the accountant continue to certify the balance sheet on the basis of including the 1920 costs, or should he write off that loss of $2,000,000? And is he correct in certifying the balance sheet at the present time on the basis of 1920 costs, or should he set up a reserve for loss of plant assets just as he sets up a reserve for anticipated inventory loss?

These points will serve to show the attitude which must be taken in making an industrial investigation. To my mind, such an investigation is one of the highest developments of our modern methods of analysis. It uses the practical experience and technical knowledge of the engineer; it involves the highest development of the accountant; it rests upon the most fundamental facts and theories of economics, and it demands a broad-minded business viewpoint in the final analysis and determinations. It serves as an instrument in the biggest job we have before us in the financial world for the next twenty-five years—the job of financing industry. It is an instrument for building, because it safeguards industry, finance and the investing public. It maps the channels through which capital flows to industry. It is the revealer of facts, the builder of confidence and the guardian of the future.

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