Depreciation of fixed assets in the inflated post-war economy of the United States

William Virgil George
The University of Montana
DEPRECIATION OF FIXED ASSETS

In the INFLATED
POST-WAR ECONOMY
of the
UNITED STATES

by

William V. George, Jr.
p.a., Montana State University, 1967

Presented in partial fulfillment of the
requirement for the degree of Mas-
ter of Arts

Montana State University
1969

Approved:

[Signature]
Chairman of Board of Examiners

[Signature]
Dean, Graduate School
TABLE OF CONTENTS

CHAPTER
I. INTRODUCTION TO THE PROBLEM .................................. 1
   Early recognition of depreciation ................................. 1
   Appraisal increases .............................................. 2
   Today’s problem .................................................. 6
   Depreciation and Changing Price Levels ....................... 7

II. THE DEPRECIATION DILEMMA ...................................... 11
   Depreciation and current prices ................................. 11
   Management's position on depreciation ......................... 13
   The case for a change in principles ............................ 19

III. SOME SUGGESTED CHANGES IN PRINCIPLES ......................... 26
   Revaluation of fixed assets ..................................... 32
   Accelerated depreciation ......................................... 35
   Tax-free reserves ............................................... 39
   Use of index numbers ............................................. 42

IV. HANDLING BY SELECTED COMPANIES ................................. 51
   R. J. Reynolds Tobacco Company ................................ 51
   Swift and Company ............................................... 53
   National Steel Corporation ..................................... 54
   United States Steel Corporation ................................. 57
   Chrysler Corporation ............................................ 59
   E. I. du Pont de Nemours and Company .......................... 61

V. AMERICAN INSTITUTION POLL OF OPINION ......................... 64

VI. CONCLUSION ....................................................... 74
<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VII. BIBLIOGRAPHY</td>
<td>79</td>
</tr>
<tr>
<td>VIII. APPENDIX A</td>
<td>82</td>
</tr>
<tr>
<td>Excerpts from letters</td>
<td>82</td>
</tr>
<tr>
<td>APPENDIX B</td>
<td>90</td>
</tr>
<tr>
<td>Index-number data</td>
<td>90</td>
</tr>
</tbody>
</table>
**LIST OF TABLE 3**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Indexes of Plant and Equipment Costs</td>
</tr>
<tr>
<td>II</td>
<td>Indexes of Plant and Equipment Depreciation</td>
</tr>
<tr>
<td>III</td>
<td>Aberthaw (Industrial Building) Index</td>
</tr>
<tr>
<td>IV</td>
<td>National Metal and Metal Products Index</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

The rapid increase in prices which has taken place since pre-war years has brought many accounting problems to the attention of business management and the accounting profession. The decreasing purchasing power of the dollar has caused difficulties in financial income reporting. A large area of the difficulty is caused by the treatment of fixed asset depreciation.

Early Recognition of Depreciation

Depreciation first took its place in accounting records on a large scale after passage of the Federal Internal Revenue Code in 1913. The cost of fixed assets was recognized as a necessary item of expense in the production of goods by industry. The federal government took cognizance of this fact by allowing gradual amortization of the original cost of the asset throughout its estimated useful, productive life. Realizing that estimates may be wrong, the tax authorities ruled that the total amount to be amortized for any one asset could not be more than the original cost of the unit regardless of the fact that the asset may be used for some time after full amortization of its original cost. This action undoubtedly was a forerunner to the well-recognized and authoritatively stated
principle that depreciation charges shall be based on the original cost of the asset. Several methods of amortization are in use though we are not concerned with them here since all originate from the same basis.

Appraisal Increases

During the period following World War I the price structure rose; business profits were good; a situation existed which was not unlike that of today. In order to deduct a larger amount of depreciation, some managements turned to a procedure of asset revaluation. This was accomplished by writing up assets to an estimated "current" value. Thus, with a larger asset account balance, management could charge, in the income statement, a larger amount for plant amortization and thereby show a smaller net profit to be transferred to earned surplus. This reduced the clamor from stockholders for dividends although the taxable income was the same as it would have been had not the adjustment of asset accounts taken place.

Subsequent to the write-up of fixed assets, management was forced to retrace its steps. When the business recession of the nineteen-thirties began, business dollar losses were being shown in the income statement; business

---

activity was poor. One alternative to this problem was apparent to business management. Depreciation charges had been adjusted in the good business periods following the first world war. If the income statement was altered to fit the situation then, why shouldn't it be altered in reverse fashion to cope with the low profits and poor business activity of the early nineteen-thirties?

Some companies did reverse their previous handling of the problem. Fixed assets were written down by many companies, the charge very often being in the account which was originally credited when the write-up occurred. Many accountants who witnessed this procedure believe that the solution produced as many new problems as it solved. After the write-up of fixed assets during the 1920's, the accounts showed the original cost in addition to the additional charge coming from appraisal figures at the time of the write-up. When the depression began in 1929, some management wished to further adjust fixed asset accounts. The writer has said that, 3

In many instances, no doubt, the fixed assets were written down in order that a more conservative picture of the financial condition would be shown by the

---


balance sheet. In many instances, however, it appears that the write-down was made for the purpose of re-
lieving future operations of large depreciation charges, in order that more favorable operating results could
be shown in the income statement.

A number of serious problems are presented when
consideration is given to possible future write-downs in
the accounts. What do the accounts really show then the
write-up exceeds the subsequent write-down or vice-versa?
Who shall make the appraisal? Are the considerations
governing the original appraisal at the time of the write-
up also to be used when a downward revision of the account
is made? If, after both a write-up and a write-down, the
capital surplus account has a negative balance, should that
negative balance be closed to earned surplus? These are
but a few of the problems presented when assets are written-
up during a period of rising prices and are subsequently
written-down when price levels are moving downward.

Today's Problem

To do have an economic situation today, however,
which is causing a recurrence of just such problems as
faced business management following World War I. The prob-
lem has resolved itself into one of determination of what
depreciation policies should accomplish. Those who advo-
cate changes in accounting principles contend that economic
concepts of income should prevail over the recognized
principle of depreciation based on original cost. "Econo-
mic income is that which is determined only when current
costs have been charged at current price levels against
current dollars of gross revenues." An adjustment of
transactions must be made so that all dollar values are
expressed in terms of an identical price level. This pre-
supposes the use of an index-number to alter figures of
the present period so that comparisons can be made with
like charges against past periods.

The nature of financial statements necessitates the
inclusion of items which are not related to identical price
levels. The statement of financial condition, for example,
shows inventory valuations which are nearly always the
result of current transactions when FIFO is used. In the
income statement will be shown depreciation charges and
interest on funded indebtedness which may not be closely
related to the current price structure. The inclusion of
these so-called "non-related" charges form the cynosure of
management.

This difficulty, then, either directly or indirectly,
has brought forth the timely discussion of accepted

4 Thomas H. Sanders, "Depreciation and 1949 Price
Sumner H. Blyth, testimony before Joint Committee on
accounting principles versus a concept of charges based on economic income. Several methods of approach have been formulated, examples of which methods we shall examine.

One writer has said, "with the possible exception of inventory revaluation, there is no phase of accounting so likely to produce profit distortion as that having to do with the accounting for fixed assets." The effect is long range, evidence of which is ample when one realizes that the life of fixed assets may well be for a period of from forty to fifty or more years. During the life of a fixed asset then, it is possible that depreciation principles may be unsatisfactory to some groups during two or three periods of the usefulness of the asset. For example, a building with an expected life of sixty years, purchased in 1915, may have been revalued during the 1920's, written-down during the depression, and is now a part of the asset account upon which management may desire to take depreciation in excess of cost.

Our subject is current although not a completely new one. Recently, one authority on accounting procedure wrote that, "The impact of the change in the value of the dollar hit corporation reporting in full force in 1947."  

---


It was for this calendar year that many companies began alternative treatment of depreciation charges. Accounting Research Bulletin No. 26, published by the American Institute of Accountants, clearly stated that shifting of income from one year to another without justification was not in agreement with accepted accounting principles. Some management, in 1947, demanded of financial reporting that some of the effects of the economic disturbance be reflected in statements for the period. "Just when arbitrary reserves seemed to have been banned in income reporting, a new set of reserves, infinitely more difficult to measure and much more subject to individual discretion, began to crop up."7

**Depreciation and Changing Price Levels**

In a period of either expanding or contracting price levels, depreciation policies will have the concentrated attention of business management. The income statement will be directly affected by the manner in which depreciation is computed and handled on the statement. This income figure is, of course, of large concern to the management. If the profit figure is large, stockholders clamor for extra dividends, labor organizations demand higher wages and proponents of other forms of government point to the "accumulation of industrial wealth." Conversely, if profits

are low, labor groups are uneasy about the firm's future; bankers may be influenced by the poor income showing of the company and reduce credit, thereby causing still greater difficulty for the firm in the future. It is not difficult to imagine industrial management's desire that net income be somewhere between "too high" and "too low."

Some annual reports to stockholders, condensed as they are, challenge the imagination and general knowledge of the ordinary person when he attempts to reconcile the firm's activity during a particular period. Various treatments of depreciation policy further complicate his thinking. As a result, the need for consistency in applying accounting principles is great. If accounting techniques vary from period to period, stockholders' reports become nearly useless when comparisons of operating results are made. The depreciation of fixed assets in a manner which will be followed by the entire industrial portion of our economy even in periods of changing price structures is most desirable. Uniformity becomes the crux of the entire problem.

The American Institute of Accountants, whose recommendations are recognized as highly desirable, is an advocate of depreciation based on cost. This organization has led the movement for a consistent manner of financial

---

Reporting through bulletins issued by its Committee on Accounting Procedure. A great service has been rendered the accounting profession and the public by the issuance of statements prepared after long and thorough study by its research committee. Even so, we see deviations from its recommendations appearing in annual reports without reference being made in the audit reports to the Institute's stand.

Corporate businesses is now enjoying very large profits even though production costs have increased over the pre-war years. Stockholders, quite naturally, expect larger returns on their investments through dividends; labor organizations point to large profit figures when renegotiation of wage contracts is at hand. The problem then centers itself on the methods used in determining net income. A very sizeable deduction, in arriving at net income, is found in the charge for depreciation of fixed assets. The average reader of financial statements and reports does not understand the refinements and ramifications of the various items found in the statement or report which further complicates his idea of "net income." Such refinements as the LIFO and FIFO methods of inventory valuation and depreciation methods such as straight-line, production hours, and diminishing cost are not generally known or understood by the investment public.
There is, then, a need for some sort of public education in the United States so that those persons who make their money available to corporate business through the purchase of stocks may have a sound knowledge of the activity to which they have entrusted their money. Some financial reports issued to stockholders are not adequate in the content or information about the business. Explanations are vague and incomplete so that even those persons with a fair knowledge of accounting principles sometimes have difficulty interpreting the true results of the company's endeavors. It would be advisable if corporate reports would comment on the risks inherent in their businesses under current economic conditions and what is being done to protect against possible loss; i.e., net current assets do not afford enough working capital or why the percent of earnings to sales was lower than average.

9 George D. Bailey, op. cit., page 515.

Depreciation and Current Prices

Depreciation charges have long been recognized as one of the costs of production. Few authorities will debate this to the contrary. One writer describes depreciation as "... the cost or expense due to all the factors which cause the ultimate retirement of property in so far as that cost is not included in current maintenance." All in such, business management is concerned with this item since it directly affects the income presentation of the business. Our problem is to analyze the situation in relation to a period of rising prices such as the present one.

Little difficulty is experienced with depreciation when the price level of the nation is stable over a period of years. Fixed asset cost is amortized over a period of useful life as estimated when the asset is obtained. If the price level remains at virtually the same position as it was when the purchase took place, business men are usually satisfied with depreciation accounting principles. It is when price levels change materially—either up or down—that deviations from the base of original cost tend to take place.

It is generally agreed that some price levels today are about two-hundred per cent of the pre-war levels.

Some estimates of plant reproduction costs indicate that present day costs are more than two-hundred percent of costs just prior to World War II. Management believes it to be unrealistic to depreciate fixed assets on original cost during this inflated price period when present day replacement costs are much greater than the original cost of assets now in use. For income tax purposes, these "cheap" fixed assets must be depreciated at cost. One contention of management is that since "cheap" assets are necessarily being depreciated at historical cost, industries' products today are priced too cheaply. In other words, they contend that the "true" cost of the product is more than that shown by cost figures compiled according to accepted accounting principles which include depreciation charges based on cost.

For this reason, some firms have adopted a depreciation policy wherein the income statement is charged for an additional amount over and above depreciation as computed on a basis of original cost. When this procedure is practiced, there are three possible methods of handling: (1) the depreciation charge is composed of both the actual charge and the arbitrary figure; (2) depreciation is taken

---

on cost and an additional charge is also deducted from gross income but in a separate listing; and (3) the added charge is deducted after net income is shown. In the latter example, the net income after the extra charge is shown as the profit transferred to surplus.

The offsetting credit for the historical cost charge is the familiar Reserve for Depreciation. The added charge for depreciation is offset in an account which usually carries the title Reserve for Plant Replacement or Reserve for Extraordinary Plant Cost. Some firms, on the other hand, do not carry separate reserves but rather carry the entire credit to Reserve for Depreciation. This procedure is not recommended. If this procedure is followed, the book value of the asset accounts is incorrect because the reserve is shown in the balance sheet as a deduction from the asset account without having previously written up the asset on an appraisal basis.

Management's Position on Depreciation

It is well recognized that management is responsible for being able to make new equipment purchases when existing equipment becomes worn out or obsolete. Letting this responsibility is not, however, the function of accounting. The accounting function is to recapture original cost through a well planned policy of depreciation. Making funds
available for equipment repurchase plans does not realistically fall into the realm of the accounting field of activity. Policy decisions have always been the responsibility of management and will continue to be their charge.

In this period of high replacement costs, the management of some corporations claim that too little depreciation is being taken on fixed assets. They believe that capital is being jeopardized by maintenance of the existing policy of amortizing only the original cost. Costs, they say, are too low because of depreciation principles, hence profits are overstated. Some management groups maintain that if capital is to be kept intact so that existing plant and equipment can be replaced, current costs indicate that depreciation reserves do not allocate enough of surplus to allow for the eventual act of replacement. This fact has influenced management to take further steps to reserve portions of surplus in addition to the amount accumulated in the account, Reserve for Depreciation.

Since the old procedure of plant and equipment revaluation is not desirable, for reasons which will be shown later, management has inaugurated the new policy of excessive depreciation. Let us now examine a hypothetical illustration which portrays this procedure.

Assume that any one year is chosen as a "normal" year in which the purchasing power of the dollar is imagined
to be one-hundred per cent, for our illustration. Assume further that the income statement of a given corporation appears as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$100,000</td>
</tr>
<tr>
<td>Less Cost of Goods Sold</td>
<td>$60,000</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>$40,000</td>
</tr>
<tr>
<td>Less Depreciation</td>
<td>$20,000</td>
</tr>
<tr>
<td>Remainder</td>
<td>$20,000</td>
</tr>
</tbody>
</table>

The year of the so-called inflated price structure is to be compared with results of the "normal" year. The same fixed assets are in use but prices and other costs are assumed to have doubled. If the very same volume of business is handled, the income statement will appear as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$200,000</td>
</tr>
<tr>
<td>Less Cost of Goods Sold</td>
<td>$120,000</td>
</tr>
<tr>
<td>Gross Profit</td>
<td>$80,000</td>
</tr>
<tr>
<td>Less Depreciation</td>
<td>$20,000</td>
</tr>
<tr>
<td>Remainder</td>
<td>$60,000</td>
</tr>
</tbody>
</table>

With this situation management may follow the reasoning that since costs have gone up one-hundred per cent, it is only proper that depreciation on existing plant should also be doubled. As a result, the new reserve is created. The income statement is charged for an additional amount which we shall say is $20,000. This charge may be lumped with the original depreciation charge, it may be deducted separately before listing net income, or it may be deducted from the figure which represents net income. In the latter case the resultant balance would be shown.
as the profit transferred to surplus.

Some managerial efforts to change existing standards
of depreciation policy, so that a smaller profit is shown
in the statements, is the primary reason for inaugurating
the change. The philosophy of the whole procedure is to
make less surplus available for dividends and thereby
protect existing working capital. The validity of this
need is not questioned by writers of corporation finance.

If the policy of taking additional depreciation is
followed, business is in effect changing its procedure to
fit the present need, and with this practice consistency
is being disregarded when in the past years depreciation
was taken on cost. The accounting profession witnessed
the write-ups of the twenties, the write-downs of the
thirties, and is now witnessing this added charge practice.
Presumably, those persons closely associated with the
problem also have their ideas about what should be done
if and when a business recession and a declining price
level appear on the scene. This sort of procedure is not
furthering the cause for a consistent, uniform policy of
income reporting.

Every person who has occasion to read financial
reports knows how very important this concept of consistency
is when comparisons are being made within the statements.
Probably a large portion of corporate stockholders compare
figures as shown in comparative balance sheets and profit and loss statements. Each of them will want to know such fundamental things as how the earnings of the past year compared with the previous year or years. Each one might conceivably be interested in such things as the portion of the sales dollar that was spent for labor, for material, for income taxes, and for plant expansion. He very probably will also note the changes in the surplus account. If he immediately notices a group of reserves on the liability side of the balance sheet, his thoughts may become jumbled in the process of attempting to determine what each stands for and how it happened to be placed on the books. Some reports, it is true, very clearly explain what has necessitated unusual handling of some items and the appearance of new accounts. Clear explanation is very desirable. If clear disclosure is not made in the report, new reserves on the balance sheet will likely present many questions to our mythical stockholder who is earnestly trying to get a clear picture of the operations of the corporation in which he has invested his savings.

If, however, the stockholder finds little deviation from year to year, in the presentation of the material which he reads, it is not a difficult task for him to make a general analysis of the statement and satisfy his own mind as to operations of the company concerned. We see,
then, from this example, that there is need for consistency and full disclosure in income and financial reporting.

One writer has stated that accounting "demands a modification of generally accepted accounting principles to permit departures from the conventional cost basis." It is argued that since business itself must make adjustments to care for itself in periods of stress, all components of business should likewise be adjustable. This subject, it is argued, is important to producer and consumer alike. One writer has said that, "when we fail to provide a sufficient amount out of gross revenue to replace the capital consumed in obtaining that revenue, we should be charged with gross neglect and with conspiring for the destruction of capital." The preservation of capital is a necessity which cannot be taken lightly. Of course it is vital. Business management is charged with the responsibility of capital maintenance and with the accumulation of profits in the surplus account prior to payment of dividends. Accounting for the needs of business should be straight-forward—manipulations of accounting techniques should not be employed to accomplish purposes such as


hiding or camouflaging depreciation charges, which are in excess of that allowed on the basis of cost.

Depreciation reserves carry the connotation of valuation accounts rather than mysterious providers of assets to be purchased in the future. The depreciation reserve is not a fund. It merely receives the periodic charges to the income statement for valuation purposes. How can any realistic evaluation of tangible assets be based on anything but historical cost? "Any attempt to build a depreciation schedule upon a theory that promises to build up a reserve sufficient to replace a machine at an unknown cost at an estimated future date is not very realistic."15 Depreciation itself is at best an estimate. True, the original cost is known but the other determinates, expected life of the asset and estimated scrap value, are not known. Any policy of estimating future replacement costs adds an estimate to an estimate which certainly does not make for soundness.

The Case for a Change in Principles

Some leaders in the management group are advocating a change in present accounting principles so that financial statements will state all items in terms of present

values. They insist that all items should be stated in terms of the same dollar value rather than cost if we are to have statements which truthfully reveal correct and not misleading figures. Some management groups maintain that a balance sheet which lists fixed assets at historical costs should not be shown with current assets such as inventories and receivables unless all items are expressed in terms of the same price level.\(^\text{16}\)

As a result of the situation created by the drastic change in price levels since before World War II, the idea of reporting financial statements in terms of current values has come to the attention of the accounting profession. Management groups, some of the accounting teaching profession, and to be sure, some of the leading practicing certified public accountants have recently advocated the idea of recognizing changes in price levels. Along this line of reasoning, serious thought must be given to a few notable items such as how will depreciation of fixed assets be computed? How will interest on long-term funded debt be altered from its original charge? How will cost of goods sold be figured?

Financial statements in a period of changing price levels are criticized from the standpoint of their con-

\(^{16}\text{See quoted statement, in Appendix, from an executive of a building materials manufacturing company.}\)
taining figures which are not expressed in terms of equal values. For instance, the balance sheet will contain figures for assets which may have been purchased with "dear" dollars during the depression years of the nineteen-thirties. In the same statement will appear figures for inventory valuation at present day prices (assuming the FIFO inventory method is used) and surplus which is partially composed of profits which are derived from sales at the present-day level less expenses which will include depreciation charges based on assets purchased with valuable dollars of the depression era. We can see that many of these figures are applicable to purchasing power of different periods. One writer has expressed the problem as being similar to deducting eighty oranges of cost and ten grapefruit of cost from one-hundred oranges of revenue and having left ten oranges of profit.17 This writer further states that while we have recognized the change in purchasing power of foreign currencies, we have done nothing, from an accounting viewpoint, with regard to the purchasing power of our own currency.

For purposes of illustration, let us examine the following hypothetical situation. Suppose that in 1932...

a person built an office building valued at £100,000.

As years passed, we would expect that the building would depreciate in value unless improvements were made to the structure. In this illustration we will assume that nothing has been done to the building other than ordinary repairs which are charged to expense. By the year 1949, seventeen years after erecting the building, it should be valued at approximately £66,000, providing the building had a life expectancy of fifty years. Certainly the building has no more inherent value than original cost less reasonable depreciation. Today, however, it is not unreasonable to believe that the structure could be sold for, let us say, £100,000, or its original cost. This would confirm our ideas that dollars, not costs, have changed. Dollars, not the value of those dollars, form the foundation of our accounting measurement.

Business, today, cannot succeed if its management does not adjust policy decisions to conform with the best possible solutions to present day problems. Conservatism and policy consistency, from one period to another, cannot cope with the ever changing environment surrounding competitive business enterprises. Dormant, non-changing management will not long remain at the top of the management register. This same modern energetic management believes then that accounting, the language of
business, should be adjustable to conform to the problem presently at hand. Today, we find some business executives favoring departure from presently accepted accounting principles. The following quotation is taken from page 17 of the 1948 annual report of the Sun Oil Company.

During the year just ended, it became increasingly clear that normal depreciation reserves were becoming even less sufficient for the replacement of worn out productive capacity than was the case in the preceding period. Furthermore, as the petroleum industry saw the functioning of the free market result in building supplies of petroleum and petroleum products to equal or in some cases to slightly exceed demand, it became apparent that the functioning of this same free market might well result in forcing a decline either in the volume of operations or in petroleum prices in the years ahead.

In view of this possibility, your management would have been less than prudent if it had not taken some positive steps to recover over the period of greatest economic usefulness that portion of the cost of the productive facilities acquired during the postwar years which, in its judgment, might prove to be excessive.

Accordingly, after giving this matter the most serious and careful consideration, your management charged against income this year an amount of $7,000,000, which represented the 1946 portion of the accelerated depreciation of productive facilities acquired since the close of the war.

During the year 1947, your Company set aside, as a reserve for the replacement of fixed assets, an amount of $4,600,000, which represented the normal depreciation rates of the Company applied to the then inflated current values of facilities which had been acquired prior to that time. A current examination of the various factors involved indicates that this reserve is adequate to take care of the accelerated depreciation experienced by the Company prior to 1948 on postwar productive facilities. Accordingly, the reserve has been transferred on our Balance Sheet from "Reserve for the Replacement of Fixed Assets" to the Depreciation Reserve; and on our Income Statement for 1947, appended hereto, the $4,600,000 is restated as "Accelerated
Depreciation of Postwar Facilities."

The policy which we were following in 1947 was carried forward into our accounting for the first six months of 1948 and as a result a sum of $3,500,000 was set up as "Reserve for the Replacement of Fixed Assets" and charged to Income during that period. This latter reserve has now been eliminated in view of the judgment of your management that the accelerated depreciation charged to earnings in the amount of $7,000,000 provides for the situation under consideration.

The American Institute of Accountants has had this subject under consideration and thorough study through its Committee on Accounting Procedure, for quite some time. In Accounting Research Bulletin No. 33, which was published in December, 1947, the Institute stated that at least until the dollar is stabilized at a definite level depreciation should continue to be taken on original cost. The committee did state, however, that when large differences exist between cost and current values of facilities, management is justified in making appropriations of net income or surplus in contemplation of plant replacement. Departure from accepted principles was not favored at this time.

With the advent of primary importance of the income statement the problem under study readily causes concern. One great use of the income statement is its almost universal use with regard to comparing results of several past periods with the most recent one. Comparisons constitute a method of judging the effectiveness of management and managerial policies. The question immediately comes
to mind of how we can make adequate comparisons when all of the items making up the income statement are not expressed in common terms, that is, with respect to price levels.
CHAPTER III

SOME SUGGESTED CHANGES IN PRINCIPLES

Reference to the following chart, which shows the actual cost of replacing $1,000 worth of plant used as compared with the depreciation allowed for income-tax purposes, gives an idea of the financial problem faced by corporate management since the beginning of the rapid increase in plant costs in 1940. We shall assume that a company acquired, in 1939, a plant which cost $10,000.

The estimated useful life of the plant is ten years after which time no part of the plant can be salvaged. By straight-line depreciation $1,000 is to be charged against operations each year for consumption of the asset.

Ordinarily, for a firm which is neither expanding nor contracting its operations, it is necessary for the company to invest in new plant an amount which will replace in kind that portion of its existing plant consumed in production activities during the year. From the chart it is seen that in 1942 it was necessary to spend $1,136 to replace $1,000 of consumed plant; in 1945, $1,185 was required; and in 1948, an expenditure of $1,785 replaced an asset worth $1,000 at the time of original purchase.

Disregarding the depreciation which is taken on other assets, the company referred to above is allowed, for federal income-tax purposes, to take a $1,000 annual
Depreciation deduction for the plant purchased in 1939. If the depreciation reserve is thought of as a replacement provision, management is in effect paying taxes on income which is reinvested in plant. Some annual reports to stockholders make note of this and suggest revision of tax regulations by the Congress. It has been said that this is essentially a method of pre-paying income taxes.\(^\text{18}\) If we think of this situation as one in which income taxes are being paid on depreciation charges, we must also remember that depreciation in future years will be high, from a tax standpoint, because the replacement of assets at today's high price level will afford larger than usual tax deductions in the future as this new group of assets is depreciated. The procedure of pre-paying taxes now is preferable to postponement of taxes which is what accelerated depreciation would mean.\(^\text{19}\)

The chart does give us some idea of the problem faced by management when plant replacement is made. Since depreciation is based on cost, maintenance of adequate plant necessitates investment of past profits or issuance of additional capital stock. This explains why some management has set up appropriations of surplus in special reserves.

---


### CHART I

<table>
<thead>
<tr>
<th>Year</th>
<th>Depreciation Allowance</th>
<th>Actual Cost of Replacing Consumed Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1939</td>
<td>1000</td>
<td>2000</td>
</tr>
<tr>
<td>1940</td>
<td>1000</td>
<td>2020</td>
</tr>
<tr>
<td>1941</td>
<td>1000</td>
<td>2073</td>
</tr>
<tr>
<td>1942</td>
<td>1000</td>
<td>2116</td>
</tr>
<tr>
<td>1943</td>
<td>1000</td>
<td>2142</td>
</tr>
<tr>
<td>1944</td>
<td>1000</td>
<td>2186</td>
</tr>
<tr>
<td>1945</td>
<td>1000</td>
<td>2202</td>
</tr>
<tr>
<td>1946</td>
<td>1000</td>
<td>2267</td>
</tr>
<tr>
<td>1947</td>
<td>1000</td>
<td>2285</td>
</tr>
<tr>
<td>1948</td>
<td>1000</td>
<td>2285</td>
</tr>
</tbody>
</table>

(Adapted, with permission, from copyrighted material found in U. S. News & World Report, a weekly news magazine, November 12, 1948, page 45.)

By restricting depreciation to original cost, the income-tax authorities have forced companies to show large profits which theoretically should be transferred to earned surplus and then distributed in part as dividends. At this point management's problem becomes acute. It cannot distribute large parts of such profits without jeopardizing its working capital. It must be able to spend the $1,785 for plant as noted above even though its depreciation allowance is but $1,000. In short, management cannot diminish its working capital to a dangerous point just because it feels the compulsion to pay dividends.
Under Section 102 of the federal tax law, a penalty tax is imposed upon companies which accumulate surplus beyond the reasonable needs of the business. Normally, the Bureau requires that about 70 per cent of earnings be distributed unless the company can show ample evidence that the accumulation is not for the purpose of decreasing current or stockholders. Indeed, the 1946 corporation income-tax return clearly asked the question as to what per cent of total earnings was being distributed to shareholders.

We can easily see that "net income" has two widely different meanings when it is computed (1) as a concept of economic income and (2) according to accepted accounting principles. A vice-president of the New York Stock Exchange said recently, "... by and large, it appears that the total profits of all American companies for 1947 would be just about half of the amount reported on a monetary dollar basis, if correction were made to eliminate the distortions caused by increased price levels in inventory and depreciation figures."20 This statement, by a high-ranking officer of the nation's largest stock exchange, shows the extent to which the doctrine of

---

economic income for financial statements has spread.

The trouble has developed from two distinct ideas concerning depreciation. Those persons who advocate statements adjusted for changes in price level associate depreciation with replacement in the future. Writers in the fields of accounting and finance do not all agree with this philosophy. For example, in Accounting Research Bulletin No. 16 it is stated that, "It may be desirable to point out that depreciation is only indirectly related to replacement. It contemplates the amortization of the cost of existing property—not anticipation of the cost of replacing it as a replacement reserve might do."21 On the other hand, some persons take the viewpoint that replacement costs are equalized by depreciation accounting. "This point of view errs in shifting the attention from the asset being depreciated to the replacement, which may or may not take place."22

Differences of opinion concerning depreciation exist even among authorities in the field. It is not uncommon to find dissenting votes cast when research bulletins are issued by the committees of the American Institute of

---


Accountants. From this, we gather that some of the criticisms of presently accepted accounting principles are well founded. Perhaps some adjustment is necessary but as yet a satisfactory method has not been found which will justify abandonment of taking depreciation on cost.

Before investigating possible alternatives to the presently accepted depreciation principle, a definition of depreciation accounting as published by the American Institute of Accountants is presented:

Depreciation accounting is a system of accounting which aims to distribute the cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation. Depreciation for the year is the portion of the total charge under such a system that is allocated to the year. Although the allocation may properly take into account occurrences during the year, it is not intended to be a measurement of the effect of all such occurrences.23

Several methods have been advanced to cope with this problem of replacement of fixed assets. The foremost method of making provision for additional depreciation would, of course, be the revaluation upwards of fixed assets. Another method is to take depreciation on historical cost but to take accelerated depreciation during the first few

periods of use of the asset. Depreciation to be figured by index number calculations has also been proposed. A further method proposes the inclusion in the Federal Income Tax Statutes of provisions for tax-free reserves to receive the so-called extra depreciation charges. These proposals will now be investigated.

Revaluation of Fixed Assets

Probably the first thing brought to mind, when depreciation problems arise, is the valuation of fixed assets. Since depreciation is based upon asset valuation, any discussion of depreciation policy will naturally refer to the asset account upon which the depreciation is taken.

During the period following the first World War, corporate business was going through a vast area of expansion; business was good; profits were high. In many respects that period was similar to the present one in that firms were carrying out operations with fixed assets which were obtained at lower prices than those which would have been paid for assets acquired at that time. As a result, some businesses adopted a policy of valuing assets, for balance sheet purposes, in excess of original cost. This allowed them to take additional depreciation and thereby reduce net profits. Some persons believe that this would be advisable at this time. Let us explore this possibility.
An accurate expert appraisal is the first step in the procedure of revaluation. If an asset is historically valued at £100,000, and present day's appraisals show its present day cost, new, to be £150,000, then to effect this in the accounts, the asset account would be charged for an additional £50,000. The offsetting credit would be to an account probably entitled Surplus from Revaluation. At this point corporate management is apparently satisfied.

Then depreciation is taken at the end of the period, the charge will be based upon the asset value of £150,000. An adjusting entry should then be made charging surplus from Revaluation for the depreciation on appreciation and crediting earned surplus. The adjustment in this example would be for one-third of the depreciation charge. In effect, a larger deduction is taken for depreciation but the end result of the surplus account is the same for although a smaller profit is transferred to earned surplus, the depreciation on appreciation is released from appraisal surplus to earned surplus as depreciation is taken.

In any appraisal, the human element is present.

While it is recognized that competent engineers can produce quite accurate appraisal figures after examination, these

---

figures are at best a human estimate. From common reasoning we know that two engineers working independently, would likely appraise an asset at two different figures. How, then, could uniform asset appraisal be accomplished? The job is tremendous. One writer states that in 1939 more than 86,000 manufacturing corporations issued statements for income-tax purposes. In the same year total tax returns of corporate business firms numbered about 470,000.25 These figures are for the year 1939. In all probability, the figures today would be in excess of this amount.

Theoretically, the task of revaluing assets would solve many of the problems presented. To be desirable, however, the revaluation should take place throughout industry—an almost impossible task to be completed. The inherent difficulty with this procedure—the human element—displays the proposal's undesirability, upon inspection.

Some accountants have suggested giving business a fresh start by allowing them to go through a "quasi-reorganization" in which figures for fixed assets would be revised, apparently on the approximate level of today's prices.26 This plan differs from the ordinary appreciation of fixed assets since "quasi-reorganization" presupposes

26 Samuel J. Broad, op. cit., page 17.
that the offsetting credit figure will be earned surplus. 27

The obvious difficulty with this plan is that it would permanently affect the accounts of the future by freezing the effects of today's price level into them. With no assurance that the level will remain constant for any set length of time, it is doubtful whether this solution would be acceptable to management. 28 With the distinct possibility that the price level will drop before the present-day assets are depreciated, management will not be anxious to face high depreciation charges in terms of dollars with possible small sales dollars of the future.

**Accelerated Depreciation**

Accelerated depreciation, if allowed, would give business the opportunity to "adjust" its income by varying the depreciation charge. For example, if a firm increased its present depreciation charge, net income would be reduced. Some firms are taking excessive depreciation on plant facilities now, although the deduction which is in excess of depreciation originally based on cost is not allowable as an income-tax deduction.

Under this plan, fixed assets would be subject to depreciation based on historical cost but the period over

---

27 Samuel J. Broad, *op. cit.*, page 17.
28 Samuel J. Broad, *op. cit.*, page 17.
which depreciation would be accomplished would be shortened.
Recapture of cost would take place at a speeded up rate.
More depreciation in the early years of the asset would be
taken, under this plan, than would be allowed if deprecia-
tion were spread evenly throughout the life of the asset.
The idea has the distinct advantage of accomplishing just
what management desires today while not deviating from the
principle of basing depreciation on historical cost. Mr.
James F. Byrnes, Director of War Mobilization and Reconver-
sion, in his second annual report, suggested this plan for
the immediate post-war period when business was forced to
make plant replacements in a high cost market. The plan was
suggested as an inducement for expanded production of civil-
ian goods when government war contracts ceased to be the
primary source of income to industry.

A few months before his death, Franklin Roosevelt
said, "Business, large and small, must be encouraged by
the government to expand its plants, to replace its obso-
lete and worn-out equipment with new equipment and . . .
the rate of depreciation on those new plants and facili-
tics for tax purposes should be accelerated."30 Henry

---

29 James F. Byrnes, Second Report, Director of War
Mobilization and Reconversion, April 1, 1945, page 36.

30 "The Depreciation Dilemma," Fortune magazine,
i. Wallace, soon after, made a similar proposal.31

The distinct advantages were pointed out by Dr. Byrnes if this policy were adopted. First, it was believed that the policy would encourage venturesome undertakings of new industry. Second, the lag between new inventions and their adoption would be reduced.

The first of these arguments seems sound. If persons contemplating a new business would be allowed to take heavy depreciation on assets in the early years of the firm's life, net income would be reduced thereby making the income tax burden less. Early recapture of asset investments would seem to reduce, to some degree, the hesitancy accompanying thoughts of a new enterprise. If some of the risk involved can be reduced it seems feasible to believe that new capital outlays would be forthcoming for new businesses. It must be noted however, that if heavy depreciation is taken early in the life of the asset, lighter depreciation and higher profits will be the result of future operations.

The second point, that the lag between invention of new equipment and its subsequent adoption for use could be reduced seems to be a rather inadequate one. It is true that management is often hesitant about adopting new

31 Lewis H. Minola, op. cit., page 57.
equipment when they have not used the present high cost machinery to its full extent. It does not seem logical that they would be more desirous of obtaining the new equipment merely because they had recaptured a larger percentage of the original cost of the equipment now in use. Just because a higher than normal rate of depreciation has been charged in past years in no way governs the present productiveness of the equipment now in use. The fact that the "book value" of present equipment is lower than it would ordinarily be if normal depreciation rates were used does not seem to call for an earlier retirement of the asset in favor of new equipment.

One distinct disadvantage of accelerated depreciation is the effect of such action on future year's earnings. Suppose that an asset which is normally depreciated to its scrap value in a period of thirty years is depreciated in twenty years. It is true that the early years, in fact all twenty years, are benefited for tax purposes since net income is reduced. Let us now turn our attention to the last ten years of the life of the asset (assuming that it is actually used for thirty years and then is retired.) During those last ten productive years, the income statement is affected in reverse manner as compared to the first twenty years. Since the full depreciation charge has been accumulated, no further charge can be assessed against.
the last ten year's earnings. This, then, inflates the earnings for those years and subjects earnings to higher taxes. This fact must be weighed against the previously stated advantages. With regard to taxable income, this plan would postpone taxes to future periods during which taxes may be harder to pay than they now are.32.

**Tax-Free Reserves**

An attempt to establish depreciation based on replacement cost through establishment of tax-free reserves in the object of this plan.33 Depreciation charges, based on appraised value, would be credited to Reserve for Depreciation. The difference between original cost and estimated replacement cost of the asset would be computed by appraisal and the asset account would then be written-up accordingly, with the credit to a reserve account. It was urged that these reserves be made tax-free by the Congress to accommodate post-war expansion during the high price levels.\(^34\) **Mintel** further states that,34 "Examination of the wartime tax laws and the hearings preceding their adoption indicates that the case for tax-free reserves, and especially reserves..."
designed to account for high replacement costs, was never adequately considered."

Determination of corporate income would have been affected by tax-free reserves. First, current depreciation charges would have been based upon replacement cost rather than original cost. Second, the basis for future purchases of assets would have been less than original cost because up to one-third of the purchase price would have been charged to the reserve and the balance charged to the asset account. Subsequent depreciation charges would of course be taken on the asset account balance which in this case would be below cost.

This plan amounts to a tax concession by the federal government; current income is reduced because of depreciation charges against income which are based on replacement values; future income would also be reduced since plant replacement costs would be partially reduced by the provision to charge the reserve and the asset account jointly at the time of purchase.

The proposal, made in 1946, suggested that the reserve allowance be authorized for a period of from three to five years immediately following the war. Management would be given an opportunity to take an income deduction, for tax purposes, on equipment and plant replacement over and above the recapture of costs as accomplished through
the reserve for depreciation. The proposed reserve was not to be flagrantly abused during future years, however. The reserve was to be used in a period of eight or ten years. Then new replacements were made not more than one-third of their cost was to be charged against the reserve. The reserve was to be limited to its fundamental purpose by a statute provision to the effect that any unused reserve provision could be taxed retroactively. Through this provision, the reserve is definitely limited to accomplish a specific purpose.

It is further pointed out that tax-free proposals rest on three principles: (1) capital is, in effect, being taxed if tax-free reserves are not allowed; (2) companies could not guard against rising costs in wartime by replacing then because the Government had almost complete control of capital goods; and (3) the price level is likely to remain near the present level for some time to come.

This proposal seems realistic and thorough. Since capital goods were controlled to a large extent during the war, many firms were forced to forgo some replacements which would normally have taken place during that period. As a result, these firms were forced to replace assets at much higher prices than would have been applicable had replacement taken place normally. A single tax-free deduction would help to alleviate the position of management in
this case. By restricting the time during which the reserve may be utilized, and in the event it is not utilized, making it taxable retroactively, seems to be a realistic approach and one which would encourage replacement in the time allotted.

One criticism seems pertinent with regard to this proposal, however. In the event a large replacement program did take place, up to one-third of the replacement cost would or could be charged against the reserve. This would mean that possibly only two-thirds of the new asset cost would be subject to depreciation after acquisition. This might cause future difficulties which the reserve itself attempts to alleviate, namely, too little depreciation being taken in the years following acquisition.

Use of Index Numbers

The use of a carefully constructed index to be used to convert present day prices to an equivalent for a chosen base period has been proposed. Such a practice would alter depreciation as ordinarily computed to a figure which in effect would have been deducted had the asset been purchased at the current price level. The method presupposes an adequate index. Many indexes are in existence and not just any one would do an adequate job. For example, factory plant and equipment depreciation should not be
adjusted by use of the Bureau of Labor Statistics' general 
cost-of-living index, nor should the adjustment be made by 
using an index of wholesale trade. It is believed that 
private industry, with the multitude of source material 
available, could construct an adequate working index. 
Perhaps the federal government could compute indexes to be 
used throughout each specific industry. It may be that 
indexes would be computed for specific areas, should such 
a plan be adopted. For purposes of illustration, an index 
has been computed for our use here.

Table I is the result of adjusting indexes found 
in the Survey of Current Business to a new base. The Aberdeen Industrial Building index is given quarterly in this 
publication, upon a 1914 base. The index for National 
Metal and Metal Products is given monthly using a 1926 
base. Both of these indexes have been adjusted to a 1935-
1939 base. This base period was chosen for several rea-
sons. First, an index should be based upon recent years, 
within the memory of interested readers. This five-year 
period is now the basis for much statistical work since 
the period just preceded the beginning of World War II. 
Finally, a five-year period was chosen in an attempt to 
remove distortions caused by short-lived increases and 
decreases in our economy. Both the Aberdeen Industrial 
Building and the National Metal and Metal Products.
TABLE I

Indices of Plant and Equipment Costs

<table>
<thead>
<tr>
<th>Abortion</th>
<th>National Metal &amp; Metal Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1935-39 = 100</td>
<td>1935-39 = 100</td>
</tr>
<tr>
<td>1940</td>
<td>102.6</td>
</tr>
<tr>
<td>41</td>
<td>110.2</td>
</tr>
<tr>
<td>42</td>
<td>110.3</td>
</tr>
<tr>
<td>43</td>
<td>119.8</td>
</tr>
<tr>
<td>44</td>
<td>120.3</td>
</tr>
<tr>
<td>45</td>
<td>125.3</td>
</tr>
<tr>
<td>46</td>
<td>126.0</td>
</tr>
<tr>
<td>47</td>
<td>161.3</td>
</tr>
<tr>
<td>48</td>
<td>170.6</td>
</tr>
</tbody>
</table>

The Abortion Index is based upon data found in Survey of Current Business. The index is computed with a 1914 base. Recomputation results in a new index based upon a 1935-39 average.

The data for National Metal and Metal Products is found in Survey of Current Business. Its base period is 1926. Conversion to a 1935-39 average results in the index above.

(Both indexes were computed by shifting the base period. This procedure involves finding the average of the indexes during the 1935-39 period. This average is given the value of 100. The index for the following years is found by dividing the 1935-39 average into the annual index as published on the old base.)
<table>
<thead>
<tr>
<th>Temperature (°C)</th>
<th>Accuracy (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>0.1</td>
<td>0.01</td>
</tr>
<tr>
<td>0.2</td>
<td>0.02</td>
</tr>
<tr>
<td>0.3</td>
<td>0.03</td>
</tr>
<tr>
<td>0.4</td>
<td>0.04</td>
</tr>
<tr>
<td>0.5</td>
<td>0.05</td>
</tr>
<tr>
<td>0.6</td>
<td>0.06</td>
</tr>
<tr>
<td>0.7</td>
<td>0.07</td>
</tr>
<tr>
<td>0.8</td>
<td>0.08</td>
</tr>
<tr>
<td>0.9</td>
<td>0.09</td>
</tr>
<tr>
<td>1.0</td>
<td>0.10</td>
</tr>
</tbody>
</table>

Legend:
- °C: Celsius
- Accuracy: ±0.01°C

Notes to be used in correlation
- Indexes of plane and tangent elevation
- Table II

1974
indexes will adequately serve our purpose in this paper. 35

Table I is presented to show the basis for and
explanation of depreciation indexes found in Table II.
Figures in Table II are found as follows:

Plant Depreciation for 1946—Plant Acquired 1940

Aberthaw Index 1946  :  \[
\frac{148.0}{102.6} \times 100 = 144.3
\]

Aberthaw Index 1940  :  102.6

Equipment Depreciation 1946—Equipment Acquired 1940

Products Index 1946  :  \[
\frac{125.6}{104.2} \times 100 = 120.5
\]

Products Index 1940  :  104.2

Depreciation computed on actual cost will be adjusted
by the appropriate index found in Table II. Keeping the
table up to date necessitates gathering the index material
from current issues of the publication noted above, adjust-
ment of the data to a 1935-1939 base, and computation of
annual depreciation rate indexes as described above.

Two procedures are available to find current
depreciation charges. First the base of the asset can
be adjusted by multiplying original cost by the deprecia-
tion index and then multiplying this adjusted base by the
depreciation rate; second, by finding normal depreciation
on cost and adjusting that figure by the depreciation index.
Either method will produce the same result.

35 For an original illustration of this procedure see,
"Depreciation Techniques and Changing Price Levels," by G.
Frank Smith, Iowa Business Digest, April 1948, published by
the Bureau of Business and Economic Research, State Univer-
sity of Iowa.
Handling of the portion of the depreciation charge which is either above or below ordinary depreciation presents a problem. For purposes of illustration, let us assume that a plant acquired in 1940 is to be depreciated in 1948 for statement purposes. Straight-line depreciation is $1,000. Our depreciation charge for 1948 is $1,000 multiplied by the plant depreciation index found in Table II, ($1,000 \times 166.5\%$ or $1,663\%$). One writer has suggested use of a Capital Adjustment Account. With the situation as assumed here, the entry for the depreciation charge would be:

\[
\begin{align*}
\text{Depreciation} & \quad 1,663 \\
\text{Reserve for Depreciation} & \quad 1,000 \\
\text{Capital Adjustment Account} & \quad 663 \\
\end{align*}
\]

To charge annual depreciation of $1,663 as adjusted, of which $663 is in excess of depreciation taken on historical cost.

The so-called Capital Adjustment Account will be shown in the not worth section of the balance sheet since, in effect, it represents a restatement of capital investment.

Needless to say, Capital Adjustment Account must be adjusted in the same manner that the Reserve for Depreciation must be adjusted, whenever an asset is completely depreciated or when it is retired prior to the

---

time full depreciation has been taken. Reference to the
decrease of depreciation will afford comparatively simple
computation of the adjustment necessary. In our example:
a plant originally costing $10,000 is purchased in 1940.
It is estimated, at the time of purchase that its scrap
value will be zero after passage of ten years time—its
expected life. Assume that the asset is retired at the
end of 1946, nine full years after it was originally pur-
chased. A table of account transactions follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Original Depreciation</th>
<th>Depreciation by index numbers</th>
<th>Excess over Normal Depreciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940</td>
<td>$1,000</td>
<td>$1,000</td>
<td>0</td>
</tr>
<tr>
<td>1941</td>
<td>1,000</td>
<td>1,076</td>
<td>76</td>
</tr>
<tr>
<td>1942</td>
<td>1,000</td>
<td>1,153</td>
<td>153</td>
</tr>
<tr>
<td>1943</td>
<td>1,000</td>
<td>1,168</td>
<td>168</td>
</tr>
<tr>
<td>1944</td>
<td>1,000</td>
<td>1,173</td>
<td>173</td>
</tr>
<tr>
<td>1945</td>
<td>1,000</td>
<td>1,221</td>
<td>221</td>
</tr>
<tr>
<td>1946</td>
<td>1,000</td>
<td>1,443</td>
<td>443</td>
</tr>
<tr>
<td>1947</td>
<td>1,000</td>
<td>1,572</td>
<td>572</td>
</tr>
<tr>
<td>1948</td>
<td>1,000</td>
<td>1,663</td>
<td>663</td>
</tr>
</tbody>
</table>

We see that $9,000 of the total depreciation taken is
to be found in Reserve for Depreciation while 2467 is
to be found in Capital Adjustment Account. Our retire-
ment entry is therefore:

<table>
<thead>
<tr>
<th>Reserve for Depreciation</th>
<th>9,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss on Retirement</td>
<td>1,706</td>
</tr>
<tr>
<td>Machinery and Equipment</td>
<td>10,000</td>
</tr>
<tr>
<td>Capital Adjustment Account</td>
<td>706</td>
</tr>
</tbody>
</table>

The loss is computed by multiplying current replacement
cost, $17,000, by the unused percent of estimated life.
(10%). The credit to Capital Adjustment account is the difference between current cost of undepreciated life
(10% of 17,060) and original cost ($10,000 times 10%).

Adjustment of depreciation by some manner seems desirable to many people. The problem has been studied
by many interested groups, and several methods of correction have been proposed. If some adjustment is to be
made, it appears that much can be said favoring adjustment by the use of index numbers. Such a method suggests ade-
quate foundation for the adjustment whereas some points in other suggested remedies leave much to individual discretion. If an adequate index, acceptable to management and government alike, could be computed, this method would go far to solve a depreciation dilemma where price levels are rising. Government recognition of this, or any of the
other suggested remedies, however, is not imminent. "Prospect is that no major changes will be made in Government
tax policy as it applies to depreciation."

One reason there is to be no change in the depreciation policy of the Internal Revenue authorities is the loss of tax receipts which the federal government now collects. Taxation authorities in the Congress do not now favor a reduction of taxes when, as in a period like this,

37 "Depreciation: To Change or Not?", United States News and World Report, November 12, 1948, page 45.
they believe that taxes should be high. Tax reductions are bitterly fought when profits are high. Recognition of such an adjustment in depreciation policies would amount to much tax relief for business. During the taxable year 1948, for instance, "... an extra deduction equal to 25% of present corporation charges for depreciation would reduce tax receipts by an estimated $450,000,000." 38

One study of the prospects for index number use in depreciation matters was undertaken by The Chase National Bank. The study was based on operations of thirty companies representing about two-thirds of the total investment in the oil industry. A table was compiled based upon four stabilizing factors: (1) the American Appraisal Company's index of construction costs in thirty American cities; (2) the Bureau of Labor Statistics' index of living costs; (3) the Bureau of Labor Statistics' index of wholesale prices of all commodities; and (4) an index of income taxes based on taxable income of $10,000 per year. The first three indexes were recomputed on a 1935-1939 basis. When the index is used it will be a "closer approach to the facts" and will help to indicate what really did happen within the industry, from a standpoint of economic income rather than dollar income."

38 United States News and World Report, Ibid., page 45.
CHAPTER IV
HANDLING OF DEPRECIATION BY SELECTED COMPANIES

R. J. Reynolds Tobacco Company

This company deemed it necessary to charge, in the income statement, an additional $500,000 depreciation because of excessive construction costs for 1947 plant additions. The credit was made to the depreciation reserve. No such provision was made in 1946. Total depreciation was $1,924,935.66, which figure included the added charge. In this particular case, management considered it necessary to add more than one-third additional to the original charge for depreciation. Total depreciation, including the additional charge, was entered as one figure in the statement of income.

The additional depreciation was not an appropriation of surplus but was handled in the income statement along with charges based on cost. This action, of course, reduced net earnings in the report which was sent to stockholders. Common stock outstanding at the balance sheet date was 10,000,000 shares of $10 par stock, or a total common capital stock value of $100,000,000. It may be readily determined that the additional $500,000 depreciation represented a reduction of net earnings, per common share, of five cents. Net earnings applicable to common stockholders were $3.0368 per share based on the net profit
reported by the company.

No mention was made as to how the half million dollar added depreciation figure was determined. The public accounting firm that certified the statement made no mention of the added depreciation.

The 1948 annual report of this company made no mention of the $500,000 charge against earnings in 1947. Nor does the income statement show a deduction for additional depreciation taken during 1948. In 1947, this was apparently done to protect working capital although a substantial issuance of preferred stock was sold to augment existing capital. This fact is made known in the 1948 report.

Earnings for 1948 amounted to $3.2623 per common share outstanding as compared to $3.0368 per common share in 1947. Plant additions, at cost, in 1948 totaled $6,528,325 while plant retirements were but $2,486,426. Thus, we see that even though plant additions were made in excess of plant retirement, no additional depreciation was found necessary for 1948.

In the annual report to stockholders for 1948, the President of R. J. Reynolds Tobacco Company remarked as follows:

Company operations, like those of every other business and every person, have continued to be affected by the diminished purchasing power of the dollar as contrasted with the period prior to the war. The higher costs of materials and supplies, as well as of
operations, together with the additional requirements of the business of the Company as it has expanded in recent years, have resulted in a need for several substantial increases in the capital resources of the Company. To meet these conditions the Company in each of the years 1945 to 1948, inclusive, augmented its capital through the issuance of Preferred Stock or long-term obligations. The total proceeds of the securities so issued aggregated $225,000,000. During the same period about $35,000,000 of earnings for those years were retained in the business. Through that financial program the Company has met satisfactorily all of its present requirements of additional capital and, at the same time, has preserved a desired relationship between capital stock and borrowed funds.

Swift and Company

During this company’s fiscal year ended October 31, 1947, a sum of $12,000,000 was credited to an account called Reserve for High Cost Additions to Fixed Assets. In the consolidated income statement, the handling of the additional charge appeared to be acceptable. Net income was shown after a charge for depreciation based on original cost of fixed assets. The $12,000,000 deduction was taken from the net income as shown on the statement, leaving a figure denoted as “Amount of Net Income Transferred to Accumulated Earnings.” This amounts to merely an appropriation of surplus which may be justified in accordance with accounting principles.

For the fiscal year ended October 31, 1948, an additional amount of $10,000,000 was handled in the same manner as the appropriation of 1947. It is, again, merely an
appropriation of surplus. This is the approach recommended by the American Institute of Accountants.40 A statement of this nature amounts to a breakdown of net income into various appropriations and transfers.

National Steel Corporation

The annual report for the year 1946 notes this company's first attempt to recognize excessive plant replacement cost. The Chairman of the Board of Directors stated that it is the company's "opinion that federal tax laws should be revised to give some recognition to this fact [high replacement cost] by allowing larger charges for depreciation and depletion..."41 during a period of abnormally high replacement costs. During 1946, however, no direct action was taken with respect to additional depreciation charges or appropriations of surplus.

The 1947 annual statement of National Steel Corporation provided for depreciation, in excess of the normal figure, in the amount of $3,500,000. The chairman's report accompanying the statements explained that this additional depreciation was not an allowable deduction for tax purposes. He further stated that failure of the government to recognize such allowances created a "very definite hardship." The consolidated profit and loss statement carried


41 National Steel Corporation, Annual Report, 1946.
this deduction in one sum along with depreciation calculated on original cost. Net income for the year was thereby reduced by the amount of $3,500,000. The additional $3,500,000 was credited to the reserve for depreciation account. Net income as reported amounted to approximately $12.03 per share. Had the additional depreciation not been taken, net income would have been about $13.60 per share of outstanding common stock. The auditor’s certified statement for 1947 was qualified with respect to the inclusion of the $3,500,000 additional depreciation which was transferred to the reserve for depreciation on the consolidated balance sheet. The second paragraph of the accountants’ report follows:

The Corporation included in its costs and expenses, and as a deduction in determining net income for the year 1947, a special provision for depreciation of $3,500,000 based on greatly increased construction and property replacement costs, this being in addition to the amount computed on the basis of cost in accordance with generally accepted accounting principles on which the provisions for depreciation have heretofore been made. This additional provision which, under existing tax laws and regulations is not deductible in computing taxable net income, has been included in the reserve for depreciation in the balance sheet.

This company retraced its steps in 1948. It was decided to attempt computation of accelerated depreciation on new facilities installed during the years 1946, 1947, and 1948. The amount of the accelerated depreciation was not deductible for tax purposes, however. The Chairman’s report to stockholders makes note of this fact and requests
action by the Congress to correct the item which, he says, "certainly should be deductible."

The total amount of computed acceleration for plant additions for the years 1946-48 was found to be £14,000,000. The method was made retro-active to January 1, 1946, and took into account the £3,500,000 excessive depreciation taken in 1947. This left a balance of £10,500,000 depreciation to be charged against operations. No pro-ration of the amount was made for consolidated statement purposes.

Rather, the entire £10,500,000 was charged against operations of 1948. The entire £14,000,000 was credited to the depreciation reserve. The accountant's report accompanying the statement made full mention of the method as follows:

In 1948 a special provision in the amount of £10,500,000 has been included in costs and expenses for accelerated depreciation on new facilities installed during the years 1946, 1947 and 1948, which is in addition to the normal depreciation. The method adopted in 1948 takes into consideration, among other things, the high rate of operations and the desirability of charging off a portion of the abnormally high costs incurred in the early life of the assets. In making the method retroactive to cover additions since January 1, 1946, the amount of £3,500,000 provided in 1947 to compensate partially for higher cost of replacements, has been considered as applicable there-against, leaving a balance of £10,500,000 to be charged against income in 1948. This change in method, which we approve, had the effect of reducing income by the amount of £10,500,000 for the year 1948 (also £3,500,000 for 1947) below what the income would have been if no change had been made in the method of providing for depreciation prior to 1947. In other material respects the principles of accounting maintained by the companies during the year were consistent with those of the preceding year.
Objection should be made to the £10,500,000 charge against 1948 earnings. Each of the years 1946, 1947, and 1948 should have absorbed an additional charge of £4,666,666 rather than 1946—none, 1947—£3,500,000, and 1948—£10,500,000. If it is decided to make the adjustment through the income statement, that portion of the £10,500,000 not applicable to 1948 could have been deducted after arriving at net income for the year. It would then be shown as an extra-ordinary charge.

United States Steel Corporation

The 1947 annual report of this company explained management's dilemma when it attempted to solve the spiraling cost of replacement. Expressed in terms of percentage increases over like costs of 1940, construction costs were estimated as follows:

<table>
<thead>
<tr>
<th>Years</th>
<th>1940</th>
<th>1946</th>
<th>1947</th>
</tr>
</thead>
<tbody>
<tr>
<td>October</td>
<td>57%</td>
<td>16%</td>
<td>43%</td>
</tr>
<tr>
<td>December</td>
<td>79%</td>
<td>68%</td>
<td>79%</td>
</tr>
</tbody>
</table>

Accordingly, £26,300,000 was set aside, after being deducted from the consolidated statement of income, in an account called Reserve for Replacement of Properties. Notes to the accounts explained how the figure was obtained. It was "30 per cent of provisions based on original cost", and "was determined partly through experienced cost increases.

---

and partly through study of construction cost index numbers. It is interesting to note that the income, based on sales is 6.005 per cent when computation is made directly from the statement of income which included the deduction for the additional depreciation. If, however, the excessive depreciation is removed, income then becomes 7.247 per cent of sales. Reference was made, in the Board Chairman's report, to "U. S. Steel's relatively low earnings of six cents per dollar of sales" although his remarks further describe the fact that earnings were charged for the additional $26,300,000. Full disclosure of this fact was made in the accountant's certified report.

During the first three quarters of 1948, the same procedure was continued. Effective January 1, 1948, the accelerated rate was increased from 30 to 60 per cent of depreciation based on original cost. However, although the company believed the principle to be sound, the stated position of the American Institute of Accountants, which was subsequently supported by the Securities and Exchange Commission, appears to have resulted in a change in the method of handling accelerated depreciation in 1948.

The United States Steel Corporation, in its 1948 annual report, stated that it had adopted a method of

---

accelerated depreciation based on cost instead of its for-
mer method of basing depreciation on purchasing power re-
covery. The method was made retroactive to January 1, 1947. 
Accelerated depreciation deducted from income in 1948 totaled 
$55,335,444 which amount included $2,675,096 representing a 
deficiency in the amount deducted in 1947 on depreciation 
added to cover replacement cost.

Again in 1948, the auditor’s certificate makes full 
review of the handling in the accounts.

**Chrysler Corporation:**

Net earnings reported for 1947 amounted to $67,181,221. 
Deducted from gross income was depreciation in the amount of 
$13,586,357. The company decided for its year ended Decem-
ber 31, 1947, to alter its depreciation policy which had 
formally been a rigid adherence to a base of original cost. 
Accelerated depreciation was taken for 1947.

The company’s annual report explained the problem as
follows: "The original cost of buildings, machinery, and 
equipment" in use at that time was $210,384,362 while re-
placement cost at present price levels was about $352,000,000 
—an increase of about 67 per cent. Accelerated depreciation 
on assets acquired since the war—amortizing over a short 
term the excess of cost over pre-war levels—was therefore 
adopted. Accordingly, included in the depreciation change
of £13,586,357 is an added amount over actual depreciation of £5,166,126.

During the five pre-war years, 1937-41 inclusive, average net earnings were 5.48 per cent of sales. Average earnings for the period 1925-1941 were 5.82 per cent. After taking accelerated depreciation in 1947, net earnings were 4.93 per cent of sales, a considerable drop. Had not the added depreciation been charged, earnings would have been 5.31 per cent of sales for 1947. The consolidated balance sheet did not show a separate account for the additional depreciation but merely included it in the reserve for depreciation account.

A brief note was presented in the 1948 report concerning depreciation policies. It was stated that accelerated depreciation was again taken on assets acquired since the war. No amount was set forth. Even with the added depreciation deducted, net income was 5.69 per cent of sales.

In analyzing sales figures and income expressed in terms of sales, it must be remembered that this period was severely penalized by strikes and material shortages which prevented capacity operation even though demand was great.

The auditor's certificate did not take exception to the depreciation policies of the company.
E. I. du Pont de Nemours and Company

Reference is made, in the 1947 annual report, to the index of construction costs published by the Engineering News-Record in which such costs were estimated to be about 73 per cent more than in 1939. The du Pont Company estimated that this index, after adjustment for factors handicapping field construction, would conclusively show that current construction costs were more than twice those of 1939.

A Reserve for Excessive Construction Costs of $20,900,000 was therefore established out of earnings. This represented "approximately 20 per cent of construction expenditures" for plant extension during 1947. Setting aside this reserve resulted in reduced earnings on common stock of $1.51 per share. The deduction from earnings took place in the statement of consolidated income after showing net operating income for the year. The accountant's certificate clearly takes exception to such action. The second paragraph of the accountants' report follows:

In accordance with a procedure instituted by the Company early in 1947, and reflected in its published interim statements during 1947, the Company has made provision for excessive construction costs in the amount of $20,900,000 and has deducted such provision from net operating and other income in arriving at net income for 1947. In the latter part of 1947, the American Institute of Accountants' Committee on Accounting Procedure published a statement in which it said "the committee disapproves immediate write-downs of plant cost by charges against current income"
in amounts believed to represent excessive or abnormal costs occasioned by current price levels".

The company, as well as the accounting profession, is to be commended for its clearness in stating their position. The company's report stated that early in 1947 the matter of providing for excessive construction costs out of earnings was discussed with the company's independent public accountants who at that time did not disagree with the proposal. Late in 1947, the American Institute of Accountants published its Accounting Research Bulletin, No. 33, which fully stated the Institute's position on the matter. This action necessitated a qualified certificate from its auditors. In mid-year, 1948, the Securities and Exchange Commission informed the company that no justification could be given its deduction, in 1947, for excessive construction costs. Thus, an amended report to the Commission was made. The company's report to the stockholders clearly pointed out that the report submitted to the Commission differed in its net profit figure with the report made to stockholders.

No reversal of the $20,900,000 reserve was made during 1948, nor was the same procedure followed in determining depreciation for 1948. Rather, the company adopted a policy of taking accelerated depreciation on the cost of facilities acquired after World War II. Accelerated depreciation amounted to $17,915,821 which was included in the depreciation deduction for 1948. The report further stated that e
deduction for income taxes was not taken for the amount of the accelerated depreciation.

No report to the stockholders could more clearly state the problem of depreciation, as faced by management, than does this excellently written statement.
CHAPTER V

AMERICAN INSTITUTE POLL OF OPINION

An important study, "Accounting and Changing Price Levels," was conducted in 1948 by the American Institute of Accountants which has maintained the principle of basing fixed asset depreciation on original cost. The Institute's stand, which has been affirmed by the Bureau of Internal Revenue and the Securities and Exchange Commission, has been subjected to considerable criticism by many interested groups. After giving much study to the problem, a poll of opinion was made by the institute in an effort to obtain opinions and recommendations from qualified, interested persons. Subsequent to mailing of questionnaires, the Institute formally took its position by reaffirming Accounting Research Bulletin No. 33, entitled "Depreciation and High Costs." This bulletin is reproduced in the Appendix.

Questionnaires were mailed to 410 business executives, bankers, economists, lawyers, government officials, security analysts, representatives of labor, and accounting teachers, in July 1948. Results of the inquiry were tabulated but not totaled since no weighting of replies was made. The opinion of a corporation representative was given the same weight as was the answer received from a banker or a labor leader. The persons questioned were not sampled at random but were chosen arbitrarily so that persons with a knowledge of the problem and those who probably
had opinions could be queried.

By September 30, 1948, 225 answers to the questionnaire had been received. Of those answers received, 188 expressed an opinion. 17 persons had no opinion, and 20 persons acknowledged the questionnaire and stated that they would reply later.

The basic question asked was, "Do you think that a substantial change in accounting methods is necessary to provide satisfactory reporting of corporate income in view of recent changes in price levels?" If an affirmative answer was given, other questions followed. The original questionnaire is reproduced in its entirety in this chapter.44

Of the 188 replies received by September 30, 1948, 134 or over 72% agreed with the Institute committee that a basic change in accounting procedures was not necessary to solve the problem as it now exists. The chairman's press release contained the following statement:

But a majority also felt, as does the committee, that business management must explain to employees and the public why high current prices of plant and facilities make it necessary for corporations to retain and reinvest a substantial proportion of net income in order to maintain assets at the same level of productivity at the end of the year as at the beginning.

In the same release, the committee reaffirmed its opinion

---

44 See pages 68 and 69.
It is interesting to note that of the eighteen groups represented, only one, economists and statisticians, went on record as favoring a change in methods. In all of the other groups, some favored a change, but the majority in each group believed that a change, now, was not an adequate solution to the problem. Of ten accounting teachers answering the query, four favored a change in procedure, six believed no change was necessary. Of business executives queried, one-fourth favored a change in procedures while three-fourths recommended present handling.

Thus, we see that the single group which favored a change did so presumably from a theoretical standpoint. Economists, by and large, treat income in the light of economic income, i.e., giving adequate consideration to fluctuating price levels. With the deviations from presently accepted accounting principles, as shown in earlier parts of this paper, coming as a result of some managerial policy, it is interesting to note that on the institute poll a substantial majority favored deferring action until such time as a more desirable solution was presented.

The American Institute of Accountant's poll of opinion brought forth many interesting, well-grounded remarks. A variety of these opinions is reproduced in the Appendix.

Results of the Institute Poll of Opinion afford on
opportunity to determine how each segment of management in the different industries feels about the problem of depreciation in a fluctuating price structure. The problem has been given much space in print, both in newspapers and in professional journals, but it is difficult to get both sides of the discussion in a single source. Many suggestions have been offered which look practical upon a first reading but which are really theoretical and would be difficult to put into actual practice.

As a result of the poll and the subsequent reaffirmance of Accounting Research Bulletin No. 33, the American Institute has done much toward convincing management that the basic idea of depreciating fixed assets on a historical cost basis is the best method available to date.
1. Do you think that a substantial change in accounting methods is necessary to provide satisfactory reporting of corporate income in view of recent changes in price levels?  
   Yes___ No___

If your answer to question 1 is Yes:

   a. Do you think it would be sufficient to report income in the presently accepted manner, accompanied by a supplementary statement which more nearly reflected "economic income" -- for example, giving effect to current price changes in figuring the cost of using plant and facilities?  
      Yes___ No___

   b. Should the figure first reported as net income be an approximation of "economic income"?  
      Yes___ No___

2. Would you favor reporting a figure for net income which approximated "economic income" if that were accepted for tax purposes?  
   Yes___ No___

3. Would you favor reporting a figure for net income which approximated "economic income" even if it were not accepted for tax purposes?  
   Yes___ No___

4. Do you believe that a change in the direction of "economic income", if accepted, should be followed year in and year out -- in years of low profits as well as high profits?  
   Yes___ No___

5. Do you think that a change, if accepted, should be applied to all companies -- in other words, that there should be a single concept of income for all companies?  
   Yes___ No___

6. If you think that a change is desirable, do you believe:

   a. That it should be reflected not only in the income statement, but also in the balance sheet by a restatement of those items in which there is a significant discrepancy between actual cost and current values?  
      Yes___ No___

   b. That the reflection of changing price levels is needed only in the income statement?  
      Yes___ No___
7. To avoid the difficulties of estimating future replacement costs or requiring appraisals, it has been suggested that price index numbers could be used to measure the approximate difference between historical cost and current cost. Do you believe that such index numbers could be satisfactory for such measurement?
LETTERS SENT OUT BEGINNING JULY 8th, 1948  

Total Replies Received Through September 30, 1948  
Expressed Opinion  
No Opinion  
Acknowledgements—reply later  

<table>
<thead>
<tr>
<th>LETTERS SENT - By Classification</th>
<th>Total Sent</th>
<th>No. Replies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Business Executives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steel Companies</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>2. Business Executives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilities</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>3. Business Executives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail Stores and Chains</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>4. Business Executives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Textiles and Clothing</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>5. Business Executives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motion Pictures</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>6. Business Executives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automotive</td>
<td>17</td>
<td>10</td>
</tr>
<tr>
<td>7. Business Executives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil</td>
<td>19</td>
<td>9</td>
</tr>
<tr>
<td>8. Business Executives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>110</td>
<td>55</td>
</tr>
<tr>
<td>9. Insurance Executives</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>10. Bankers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>49</td>
<td>25</td>
</tr>
<tr>
<td>11. Economists &amp; Statisticians</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>14</td>
</tr>
<tr>
<td>12. Labor Representatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>13. Accounting Teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>14. Lawyers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>12</td>
</tr>
<tr>
<td>15. Government Officials</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>16. Controllers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>17. Investment Trust Officers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>18. Security Analysts</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>13</td>
</tr>
<tr>
<td>No.</td>
<td>Business Executives</td>
<td>Steel</td>
</tr>
<tr>
<td>-----</td>
<td>---------------------</td>
<td>-------</td>
</tr>
<tr>
<td>2</td>
<td>Business Executives</td>
<td>Utilities</td>
</tr>
<tr>
<td>3</td>
<td>Business Executives</td>
<td>Retail Stores</td>
</tr>
<tr>
<td>4</td>
<td>Business Executives</td>
<td>Textile</td>
</tr>
<tr>
<td>5</td>
<td>Business Executives</td>
<td>Motion Pictures</td>
</tr>
<tr>
<td>6</td>
<td>Business Executives</td>
<td>Automotive</td>
</tr>
<tr>
<td>7</td>
<td>Business Executives</td>
<td>Oil</td>
</tr>
<tr>
<td>8</td>
<td>Business Executives</td>
<td>General</td>
</tr>
<tr>
<td>9</td>
<td>Insurance Executives</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>Labor</td>
<td>3</td>
</tr>
<tr>
<td>11</td>
<td>Statistics</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>Labor Representatives</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Accounting Teachers</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>Laymen</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>Government Officials</td>
<td>2</td>
</tr>
<tr>
<td>16</td>
<td>Controllers</td>
<td>3</td>
</tr>
<tr>
<td>17</td>
<td>Officials</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>Security Analysts</td>
<td>3</td>
</tr>
</tbody>
</table>
CHAPTER VI

CONCLUSION

The rapid changes in the price level, brought about by industrial activity operating at capacity during the recent war, brought new post-war problems in accounting and finance. Depreciation accounting became the subject of much discussion and criticism. In many industries, the depreciation charge is large enough so that even minor deviations from normal handling affect the profit percentage of gross income greatly. Since depreciation charges exert such a large influence upon net income, it is axiomatic that depreciation accounting is subject to criticism in times of stress.

During the actual war period, the price level of goods in the United States was under government control. The emphasis was upon war production which meant high individual incomes and a shortage of consumer goods. When government price restrictions were lifted, prices increased sharply. Money was plentiful. The "seller's market" was excellent in most lines. This meant that corporation earnings were very high.

At the same time, many companies desired to invest in new plant and equipment either for purposes of expansion and/or replacement of worn out or obsolete equipment which could not be replaced during the war. Replacement
costs were very high when compared with pre-war costs of comparable assets. It seemed to be an unrealistic policy to some managements to be allowed an annual depreciation deduction, for income-tax purposes, when it was necessary to re-invest perhaps twice that amount to replace that portion of the asset consumed in operations during that year.

In 1946, some annual reports of corporations took cognizance of this fact and associated depreciation allowances with replacement practices. Appropriations of surplus began to appear in an effort to protect working capital. This practice was adopted by many companies in 1947. Very often the reserve was set up, not as an appropriation of surplus, but as a depreciation charge in the income statement. Of course, this practice reduced net earnings as reported to stockholders although the arbitrary deduction was not allowed for income-tax purposes.

Some authorities favored alteration of presently accepted accounting principles so that statements could be prepared which would show "economic income" rather than dollar income. Statements were criticized from the standpoint that they included money values which resulted from transactions taking place at various price levels. Some of the proposals for remedying the time-honored convention of depreciating assets on historical cost over the entire useful life of the asset were: (1) revaluation of accounts
by appraisal, (2) depreciation charges adjusted by price-
level indexes, (3) accelerated depreciation during the
early life of the asset (with total charges not to exceed
cost) and (4) recognition by the Internal Revenue Bureau
of so-called "tax-free reserves" to be set up after an ap-
praisal of assets. Some of these proposals have sound ad-
vantages but the present satisfaction of any one method
must not overshadow possible future difficulties necessi-
tated by their adoption.

Corporate earnings set new records after World War
II. After experiencing profit limitations because of the
excess profits tax during the war period, some managements
believed that the federal government should allow some sort
of relief from depreciation "based on cost" so that net
income subject to taxes would not be so great. Since plant
replacements come from taxed profits in part, it was claim-
ed that capital was, in effect, being taxed.

The immediate post-war "boom" period was not the
proper time to allow depreciation deviations for tax pur-
poses. Should a deviation of depreciation principles for
tax purposes ever take place, it would seem more logical
that they come during a period of business recession when
business requires outside help. There does not seem to
be any logical reason to grant business such aid when pro-
fits are setting new highs, when the market is generally
regarded as the seller's and not the buyer's, when individual incomes are high and a record number of job holders are on the job. Some government authorities believed that tax adjustments in general should be delayed until the "boon" ran its course. No adjustment of depreciation principles was made. It now appears that no adjustment will be made.

Management's concern over depreciation policies in a period of rising prices is understandable. However, no panacea exists at the present time which will correct this difficulty.

The American Institute of Accountant's Research Bulletin No. 33, issued in December 1947, and publicly supported by the Institute again in late 1948, was the one large influence supporting depreciation based on original cost. The Securities and Exchange Commission fully supports the stand taken by the Institute. For the most part, public accountants held the line in 1948 annual reports.

There is no need to formulate depreciation policies upon replacement cost. Depreciation accounting is accomplished by amortizing the original cost of an asset. Basing depreciation charges upon replacement cost is not realistic because the cost of subsequently acquired assets will be amortized after acquisition. Providing for estimated cost of future assets should not be made by charges against current income.
The depreciation difficulties caused by the rising prices during and after World War II will be met when high depreciation is charged against future income. It is true that plant and equipment replacements were purchased at high prices but the cost of these assets will be "recaptured" by charges against future periods--those periods which receive the utility of the asset--rather than against current periods.

The position taken by the American Institute of Accountants is the most logical approach to the problem. Its position is the only one accepted by the Bureau of Internal Revenue. The suggested remedies would have introduced an uncertain element into the accounts. Historical cost is a definite amount, and the only logical basis upon which to base depreciation charges. We must remember that accounting is an orderly process of portraying measurable facts. Possible replacement cost is not definite; cost of asset acquisition is definite.
BIBLIOGRAPHY
BIBLIOGRAPHY

A. BOOKS


D. PERIODICAL ARTICLES


GOVERNMENT PUBLICATIONS


BULLETINS

American Institute of Accountants, Accounting Research Bulletin No. 16, October 1942.


CORPORATION ANNUAL REPORTS

1946-1948

R. J. Reynolds Tobacco Company
Swift and Company
National Steel Corporation
United States Steel Corporation
Chrysler Corporation
E. I. du Pont de Nemours and Company
APPENDIX
APPENDIX A

The following material is reproduced through the courtesy of the American Institute of Accountants, 13 East 41st Street, New York 17, New York.

ACCOUNTING RESEARCH BULLETIN No. 22

"Depreciation and High Costs"

1. "The American Institute of Accountants committee on accounting procedure has given extensive consideration to the problem of making adequate provision for the replacement of plant facilities in view of recent sharp increases in the price level. The problem requires consideration of charges against current income for depreciation of facilities acquired at lower price levels.

2. "The committee recognizes that business management has the responsibility of providing for replacement of plant and machinery. It also recognizes that, in reporting profits today, the cost of material and labor is reflected in terms of 'inflated' dollars while the cost of productive facilities in which capital was invested at a lower price level is reflected in terms of dollars whose purchasing power was much greater. There is no doubt that in considering depreciation in connection with product costs, prices, and business policies, management must take into consideration the probability that plant and machinery will have to be replaced at costs much greater than those of the facilities now in use.

3. "When there are gross discrepancies between the cost and current values of productive facilities, the committee believes that it is entirely proper for management to make annual appropriations of net income or surplus in contemplation of replacement of such facilities at higher price levels.

4. "It has been suggested in some quarters that the problem be met by increasing depreciation charges against current income. The committee does not believe that this is a satisfactory solution at this time. It
believes that accounting and financial reporting for
general use will best serve their purposes by adhering
to the generally accepted concept of depreciation on
cost, at least until the dollar is stabilized at some
level. An attempt to recognize current prices in pro-
viding depreciation, to be consistent, would require
the serious step of formally recording appraised cur-
rent values for all properties, and continuous and
consistent depreciation charges based on the new values.
Without such formal steps, there would be no objective
standard by which to judge the propriety of the amounts
of depreciation charges against current income, and the
significance of recorded amounts of profit might be
seriously impaired.

5. "It would not increase the usefulness of reported
corporate income figures if some companies charged de-
preciation on appraised values while others adhered to
cost. The committee believes, therefore, that consid-
eration of radical changes in accepted accounting pro-
cedure should not be undertaken, at least until a stable
price level would make it practicable for business as a
whole to make the change at the same time.

6. "The committee disapproves immediate write-downs
of plant cost by charges against current income in
amounts believed to represent excessive or abnormal costs
occasioned by current price levels. However, the com-
mittee calls attention to the fact that plants expected
to have less than normal useful life can properly be de-
preciated on a systematic basis related to economic
usefulness."

The following excerpts are taken from letters re-
ceived by the American Institute of Accountants in reply to
its questionnaire which was directed to selected persons in
1948.

The president of an automobile parts manufacturing
company said: "We agree that it is a problem and it
should be solved. As to whether it can or not is doubt-
ful but in any case a very difficult task. The Federal
tax picture casts shadows over all answers.
"The solution of this problem is not so much an
accounting function but is largely a financial policy function which should be taken care of in relations with stockholders either by the president with full disclosures or by the board of directors. After all, the function of accounting should be to record actual costs and report to the board or the president or administration the hazards in the reports. All of this is on the premise that we should all be for uniform accounting practices consistently maintained. We cannot depend on the accounting division to place values on inventories or investments. Such a situation could be manipulated and requires policy decisions.

"I have almost a crusading fervor in favor of enlightening stockholders to the low prices at which the assets which they own are carried on books on a depreciated basis and that when only small profits are shown on the basis of these low depreciation rates they are in effect turning over all the benefit of their assets either to the customers based on prices or to employees if wages are out of line. Contribution toward salvage of this difficulty with stockholders would be to eliminate capital gains tax to a corporation on assets depreciated if they are sold."

The vice president of a mail order concern said: "We in the retail business are keenly aware of the shrinkage in the value of the dollar and the need for more dollars to finance a given volume of business. We know, too, the practical effect of insufficient depreciation reserves to provide the cost of replacing worn-out facilities. We believe, however, that additional provision for this contingency is required in the annual report and the statement to the stockholders, with the reason for such an appropriation being fully explained.

"Any attempt made to set up accounting figures on a basis other than the dollar — whether it be economic income or other artificial bases — would fail to serve its purpose when the country turned from inflation to deflation. We are in favor of continuing the use of the dollar as the standard basis of value."

An executive of a building materials manufacturing company speaking for the president said: "I believe that the recent rapid changes in price levels caused a considerable distortion in earnings statements and to some degree in balance sheets. I believe that all the items of financial statements should be expressed in dollars of uniform value; that we should not have
statements some items of which are expressed in dollars of current value and some items of which are expressed in dollars valued as in past years."

The vice president of a machine tool company said: "In my own opinion, the standard method of determining net income in corporate accounting, despite its many difficulties, is far more useful and realistic than the proposed 'economic income' method of accounting. The first advantage of the present method is that it permits a definite determination of cost of production in dollars. The modern depreciation charge spreads the actual dollar cost of machinery and buildings over the number of units produced by these facilities. That is a reasonable conception that can be understood by anyone.

The second advantage is that values are shown on the conventional balance sheet at cost, and provide a firm basis on which anyone interested in the figures can form his own conclusions as to market value, replacement value, or any other 'value' in which he is interested. Anyone can argue about the present value or reproducive cost of a building, but if a Company tells its stockholders and creditors what it paid for the building and how much it has charged off, then it has given them the two factors of value under its control and has not committed itself to an opinion as to present or so-called economic value.

...As compared with these advantages, the proposed method of 'economic income' determination would introduce a hopeless uncertainty into all business calculations. This method.....proceeds on the theory that depreciation reserves provide the funds with which to replace worn out equipment and buildings.....This, of course, is not the purpose of the depreciation charge. Depreciation merely spreads the cost of equipment and buildings over the number of units manufactured by that equipment, thereby enabling a firm to take these costs into account before arriving at a net profit figure on the year's production.....Costs are historical and, therefore, are used as a guide for future action. When determining selling prices, these costs used as a basis should be adjusted to reflect anticipated wage and material cost increases or decreases. A similar adjustment should be made to reflect any inadequacy of the provision for depreciation to provide for replacement costs. This eliminates any justification for the development of hypothetical figures to be recorded in
the books of account which, otherwise, are based on incurred costs.

"The drive behind the proposals for an "economic income" method of accounting lies in the fact that some of our corporations with large capital investments are finding it difficult to justify to labor and the public the record dollar profits that they are making today, but which they cannot pay out in dividends because of the need to conserve cash for replacement of facilities and for expansion. The solution to their problem is not to change their method of accounting, but rather to explain to the public in their annual reports and in publicity the use to which the corporation is putting its retained earnings."

The Treasurer of a metal products manufacturing corporation expressed his opinion: "It is true that present methods do not recognize the real values underlying the inflated price structure of today, but if a company, and its Board, and its stockholders do not have the good judgment to realize that the profits they are showing are inflated, and pay out all those profits in dividends, then they are courting disaster, and are not worthy of the position they hold. Any sane and sound Board of Directors will not pay out all of those profits in dividends, which reflects profits due to inflation.

"From a professional standpoint, I do not see how accountants can certify to a statement of accounts that is prepared on a hypothetical basis, and that is all the proposed change in methods would produce. Furthermore, if a deviation is allowed from the general and more accepted methods of preparing accounts, where are we going to stop?"

The economist of another life insurance company said: "There does not seem to be a need for substantial change....Apart from the question of desirability, I have grave doubts about its feasibility."

The president of a bonding and insurance company wrote: "I believe present accounting methods in general use do provide satisfactory data relative to earnings for a given period, as such statements are based on actual facts for the period under review.

"I believe, the operating statements and balance sheets of all companies should be accompanied by supplementary comments explaining the effect of the current price
level on operating results for the period and indicating what the effect may be for subsequent periods.

"The term 'economic income' is very indefinite and any income stated on this basis would be primarily a reflection of the judgment of the individuals preparing the data. In the case of poor management I believe that such a basis could be deliberately 'juggled' to show any trend the management wished to show. In other words, I believe it would be wholly unreliable."

A professor says: "My answer to your first question would be no, although I should not object to a supplementary (and subordinate) statement in which an attempt is made to approximate economic income by taking account of price changes that affect important elements in the income account.

"If there were available an absolutely accurate, unequivocal and generally accepted measure of price changes, clearly suitable for the adjustments desired, my answer to your first question might be yes. But such measures are not available. If accountants were to make adjustments of the type you mention, a user of the corrected income figures would have no way of knowing just what elements of personal judgment and of possible unwise or biased choice of deflators entered into the computations that yield the published figures. Many unverifiable assumptions would be introduced into such corrections. Present figures are, presumably, unambiguous as to their derivation."

The dean of a graduate school of business said: "I have never been able to get the slightest excited regarding this matter of trying to reflect in our financial statements and in our books of account so-called 'economic income.'"

"I have discussed this matter with a number of prominent practicing accountants and the more I hear it discussed the more impractical I believe the concept to be..."

"Accordingly, why can't we be satisfied with an honest and intelligent statement of our accounts on a monetary cost basis, making such adjustments to current valuations as we presently use with reference to marketable securities, current inventories, and similar items. I personally would be very regretful to see the accounting profession toppled off its foundation merely because a few theoretical economists aren't satisfied with the present basis on which business operates."
A utilities corporation president said: "... I necessarily view the "economic income" concept from the narrow porch of the public utility business... this industry has been through a cycle of economic income with accrued depreciation down to retroactive straightline depreciation -- with write-offs in excess cost (and in some cases costs 'above' and 'below' the line). The account classifications promulgated by the regulatory commissions are now so thoroughly fixed that any change would have to be effected against overwhelming odds.

"Your letter seeks to establish whether there is a general demand for change in income statements from 'monetary cost' to 'economic income.' I would deem such a change in the concept of accounting to be unfortunate. It is, of course, apparent that economic income may be quite different from monetary cost and I would consider that creditors and stockholders are entitled to information which would enable them to evaluate economic income......it is not a responsibility I would assign to accountants....Frankly, I think the accountants can serve everyone -- including themselves -- best if they stick to monetary cost. If they want to meander in the swamp of economic income as a sideline, that's quite all right but let's have it in supplemental schedules and not in the account."

The controller of a steel company writes: "As stated in your letter, this problem is not an easy one to solve. However, our President has been aware of the fact for some time that income statements of companies, generally, as shown in their annual reports have not, in most cases, reported what in our opinion is the true economic income.

"Presently, we have a forty-cent dollar when compared with the actual cost of our fixed assets and it has been recognized by certain managers of some of the larger corporations that it is absolutely necessary to set aside a reserve over and above the actual cost of plant and equipment so that funds will be available when the time for replacement comes.

"Similarly, corporations have been using up low-priced inventories and, as a result, have been reporting extraneous profits without setting aside appropriate reserves for replacement and to reflect the real economic or sound values thereof nor to take care of any deflationary action that is bound to occur after the business peak subsides..."

"For the present, we believe the practical approach to this problem is to set aside reserves to take care
care of the foregoing items as we have done in our reports to our shareholders. Also, we believe the Federal income tax law should be revised to take cognizance of those facts.

A president of a steel corporation says: "It is desirable to seek a supplementary manner of reporting in respect of the availability of profit for dividend payment... At least for the present it would seem preferable to show as a separate deduction an additional amount representing the excess of an accrual for use of plant on a current replacement cost basis over the amount of depreciation set aside for the period. The purpose of this separate deduction would be to arrive at a final figure more nearly representing net income after reflecting the use of plant and facilities at their present rather than their historical cost."
APPENDIX B

The following data, reproduced from the Survey of Current Business, is the basis for the index computation found in Chapter III.

TABLE III

The Abortion (Industrial Building) index - 1912 = 100

<table>
<thead>
<tr>
<th>Year</th>
<th>March</th>
<th>June</th>
<th>Sept.</th>
<th>Dec.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1935</td>
<td>177</td>
<td>177</td>
<td>177</td>
<td>177</td>
</tr>
<tr>
<td>1936</td>
<td>176</td>
<td>183</td>
<td>183</td>
<td>195</td>
</tr>
<tr>
<td>1937</td>
<td>203</td>
<td>201</td>
<td>193</td>
<td>196</td>
</tr>
<tr>
<td>1938</td>
<td>195</td>
<td>192</td>
<td>192</td>
<td>192</td>
</tr>
<tr>
<td>1939</td>
<td>168</td>
<td>187</td>
<td>191</td>
<td>192</td>
</tr>
<tr>
<td>1940</td>
<td>191</td>
<td>193</td>
<td>194</td>
<td>195</td>
</tr>
<tr>
<td>1941</td>
<td>197</td>
<td>207</td>
<td>211</td>
<td>215</td>
</tr>
<tr>
<td>1942</td>
<td>218</td>
<td>223</td>
<td>225</td>
<td>225</td>
</tr>
<tr>
<td>1943</td>
<td>227</td>
<td>227</td>
<td>227</td>
<td>221</td>
</tr>
<tr>
<td>1944</td>
<td>221</td>
<td>227</td>
<td>227</td>
<td>231</td>
</tr>
<tr>
<td>1945</td>
<td>232</td>
<td>232</td>
<td>232</td>
<td>243</td>
</tr>
<tr>
<td>1946</td>
<td>250</td>
<td>270</td>
<td>287</td>
<td>300</td>
</tr>
<tr>
<td>1947</td>
<td>304</td>
<td>300</td>
<td>304</td>
<td>307</td>
</tr>
<tr>
<td>1948</td>
<td>310</td>
<td>325</td>
<td>327</td>
<td>323</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>Jan.</td>
<td>85.6</td>
<td>86.7</td>
<td>90.9</td>
<td>96.6</td>
</tr>
<tr>
<td>Feb.</td>
<td>85.6</td>
<td>86.7</td>
<td>91.7</td>
<td>96.0</td>
</tr>
<tr>
<td>Mar.</td>
<td>85.7</td>
<td>86.6</td>
<td>96.0</td>
<td>96.0</td>
</tr>
<tr>
<td>Apr.</td>
<td>85.9</td>
<td>86.6</td>
<td>96.5</td>
<td>96.3</td>
</tr>
<tr>
<td>May</td>
<td>86.6</td>
<td>86.3</td>
<td>95.3</td>
<td>96.7</td>
</tr>
<tr>
<td>June</td>
<td>86.9</td>
<td>86.2</td>
<td>95.9</td>
<td>96.1</td>
</tr>
<tr>
<td>July</td>
<td>86.9</td>
<td>86.9</td>
<td>96.1</td>
<td>95.2</td>
</tr>
<tr>
<td>Aug.</td>
<td>86.6</td>
<td>87.1</td>
<td>97.0</td>
<td>95.4</td>
</tr>
<tr>
<td>Sept.</td>
<td>86.6</td>
<td>86.6</td>
<td>97.1</td>
<td>95.5</td>
</tr>
<tr>
<td>Oct.</td>
<td>86.5</td>
<td>86.9</td>
<td>96.4</td>
<td>95.3</td>
</tr>
<tr>
<td>Nov.</td>
<td>86.9</td>
<td>87.9</td>
<td>96.8</td>
<td>95.5</td>
</tr>
<tr>
<td>Dec.</td>
<td>86.6</td>
<td>87.6</td>
<td>96.3</td>
<td>96.8</td>
</tr>
</tbody>
</table>