Investor Reaction to the Announcement of Discretionary Losses.

Eugene Raymond Rozanski

*Louisiana State University and Agricultural & Mechanical College*

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INVESTOR REACTION TO THE ANNOUNCEMENT OF DISCRETIONARY LOSSES

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy in

The Department of Accounting

by

Eugene Raymond Rozanski
B.S., University of Missouri, 1959
M.S., Saint Louis University, 1968
December, 1975
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I would also like to express my gratitude to my colleagues at Southern Illinois University for their patience and encouragement.

Finally, I would like to acknowledge a debt to my wife, Jo, whose support and understanding was the major factor in the preparation of this paper.
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ABSTRACT

INVESTOR REACTION TO THE ANNOUNCEMENT OF DISCRETIONARY LOSSES

In recent years, financial analysts, the financial press and others have directed criticism toward companies who have recognized material discretionary losses in their income statements. The inference is that these firms are engaged in some form of deceptive reporting practice characterized by periodically "taking a financial bath." The expression "taking a financial bath" refers to a situation where management postpones the recognition of the financial effects of unfavorable events over several periods and then recognizes one large loss in the current period, thereby restricting any adverse investor reaction to that period. Research concerning financial bath activity is not extensive; however, there are several studies which found a significant relationship between the recognition of discretionary losses and certain conditions existing within the firm.

The major objective of this study is to measure investor reaction to the announcement of a discretionary loss and to determine if a reaction can be influenced by timing the loss recognition in a period when certain
conditions are present. Relying upon the research in portfolio theory regarding the efficiency of the market in evaluating publicly available information, changes in security price returns were observed as a basis for assessing investors' reaction to the loss announcement. The 60 firms analyzed in this study which were identified as having recognized a discretionary loss in the period extending from October, 1972, through September, 1973, were partitioned into six groups on the basis of the presence or absence of the test conditions. Attention was focused on the mean price residuals for all firms in the loss announcement week.

The results of this experiment indicate that the announcement of a discretionary loss is perceived by investors as an event of real economic significance as evidenced by a rapid investor response in terms of a significantly above-average price response in the week the discretionary loss is first publicly disclosed compared to the mean price response experienced by the companies in a six-month period prior to the loss announcement. In addition, it was found that, on the average, the announcement of a discretionary loss is perceived by investors as "bad news" and elicits a significant downward security price adjustment in the week the loss is announced.

The final test performed in this study concerned whether or not the timing of the discretionary loss
announcement in a period when certain conditions were present could influence investor response to the loss announcement. Statistical hypothesis for three conditions were formulated: (1) an adverse income condition, (2) depressed security price condition, and (3) an extraordinary gain condition. For each of these conditions, the null hypothesis that there is no significant difference in investor reaction between those companies where the condition was present and those companies where the condition was not present could not be rejected at the .05 level of significance. On the basis of this evidence, it was concluded that investor reaction to the announcement of a discretionary loss cannot be significantly influenced by timing the announcement in a period when any one of the test conditions is present.

The findings of this study are fully in accord with and lend support to the efficient market hypothesis. The announcement of a material discretionary loss was viewed by the market as news of an event with real economic significance and elicited a significant investor reaction in the week the loss was announced. Investor reaction was rapid and negative. Practices such as timing the loss announcement when other conditions are present do not represent events of real economic significance and, hence, are ignored by the market.
Chapter 1

STATEMENT OF THE PROBLEM
AND RESEARCH PLAN

Income determination and its presentation in financial statements continues to be a primary concern of accountants and users of financial statements. The Accounting Principles Board in Statement No. 4 states that "the information presented in an income statement is usually considered the most important information provided by financial accounting because profitability is a paramount concern to those interested in the economic activities of the enterprise."\(^1\) Likewise, the American Accounting Association in A Statement of Basic Accounting Theory states that, "the past earnings of the firm are considered to be the most important single item of information relevant to the prediction of future earnings."\(^2\)


In recent years, there has been increased concern expressed over the quality and meaning of periodic income figures being reported by some firms. Much of this concern has been directed toward the seemingly growing practice of firms recognizing large charges to income which do not readily appear to be the result of identifiable events which have taken place in the current period. In many instances, these charges appear without the least forewarning and are of such magnitude that often several prior years' earnings are cancelled out. As a result, inferences as to the adequacy of prior years' reported income figures reflect some skepticism.

An empirical study by Copeland and Moore covering the period 1966 through 1970 reports an upward trend in the number of companies reporting discretionary accounting decisions which reduce income. A similar finding was reported in another empirical study by Charles Merz for

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the period 1967 through 1972. Data from recent issues of Accounting Trends and Techniques also reflect an upward trend in the number of companies reporting material charges in financial reports.

Table 1

<table>
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<th>Year</th>
<th>Number of Firms Reporting Extraordinary Charges in Income Statement</th>
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<td>1972</td>
<td>218</td>
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<td>1971</td>
<td>206</td>
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<td>1970</td>
<td>112</td>
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<td>1969</td>
<td>100</td>
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<td>1968</td>
<td>79</td>
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*aEach issue reflects data of prior year.

Source:


An examination of the nature of the charges reveals that a majority of charges in each of the above years concerned: (1) losses on the sale or other disposal of assets and (2) losses on the disposal of discontinued operations. This upward trend may very well be the consequence of phenomenon observed by Paul Pacter several years ago:

The recent years have seen a marked increase in the number of business acquisitions in the rush toward agglomeration of corporate entities. This trend might well portend an increase in the number of situations in which segments of companies' operations are discontinued as uneconomical or otherwise unwanted acquisitions are disposed of by the management of the acquirors.6

In order to remain viable, a business entity must be able to adjust rapidly to changed economic conditions. Economic change often requires a company to alter its activities significantly. The problems and difficulties encountered in the process of adjustment are often accompanied by new and unforeseen problems in the accounting and reporting of these new activities. The economic environment in the 1960's nurtured a significant increase in the number of mergers and acquisitions along with serious accounting and reporting problems. The APB considered these accounting problems to be of such magnitude that it was necessary to issue APB Opinion No. 16 and APB Opinion No. 17 in an attempt to alter accounting practice.

to better reflect the changed economic environment. The economic environment in the 1970's may very well be a period of re-evaluation and disposition as firms seek to adjust to a constantly changing environment. Accountants should be alert to significant changes in the pattern of corporate reporting and should closely scrutinize areas which heretofore may not have caused concern, but now, because of a changed economic environment, might be developing into a serious accounting and reporting problem.

A number of accountants and financial observers view the upward trend in the number of companies reporting large charges to income as a condition which is fostering undesirable accounting practices and, in some instances, misleading reports.

NATURE OF THE PROBLEM

In 1965, Leopold Bernstein conducted an empirical study on the manner in which extraordinary gains and losses are presented in corporate annual reports. This study documented a considerable number of inconsistencies in the manner in which items of a similar nature were being presented in annual reports. There appeared to be a


tendency for gains to appear in the income statement whereas large losses were taken directly to the balance sheet through retained earnings.\(^9\) Conceptually, justification for these inconsistent treatments often found their basis in the differing viewpoints of those who advocated the All-Inclusive Concept versus those who supported the Current Operating Performance Concept of income determination. With the issuance of Opinion No. 9, the APB sought to reduce the inconsistencies in practice and to specify which items should be included in the determination of income.\(^10\) The Opinion was successful in obtaining some uniformity in the statement presentation of items in the determination of income. It also created a separate category for extraordinary items on the income statement and defined the criteria to be used in recognizing items in this category. Unfortunately, reporting abuses observed in subsequent years demonstrated that the criteria established for extraordinary items contained weaknesses and appeared to be subject to opportunistic interpretation by some reporting firms.

Several studies conducted subsequent to the issuance of APB Opinion No. 9 identified several areas

\(^9\) Bernstein, Accounting for Extraordinary ..., p. 182.

where inconsistencies and questionable practices concerning extraordinary items were evolving. In one study, Michael Amenta found inconsistencies among firms in the manner in which they classified similar items. Some firms classified certain types of events as extraordinary whereas the same type of event was classified as ordinary by other firms. Perhaps the most serious of the observed practices concerned the use of the extraordinary category as sort of a "second class" income classification. That is, when operations were favorable, results were deemed to be normal recurring operating income; however, when results proved unfavorable the items were categorized as being extraordinary. This impression was often further reinforced by management's explanations and releases to the financial press, thereby leading one to the belief that the loss items were not the result of normal operations; they were unusual and beyond the control of management and hence should not be considered in an evaluation of operations or the performance of management.


Of equal interest was the large magnitude of some of the charges and the curious pattern of their appearance in the financial statements suggesting that a definite timing in the reporting of these events might have occurred. The state of the economy in 1970 seemed to provide an environment which magnified the big write-off and extraordinary charge phenomenon. Loss discoveries soared to such an extent that 1970 was dubbed "The Year of the Big Bath." A financial bath is generally characterized as a "clearing the decks process"; that is, a clean-up of balance sheet accounts by write-off or write-down often accompanied by making a provision for future costs and expenses.

A number of accountants, financial analysts, and the financial press began posing the question whether or not this financial bath phenomenon might not be an income manipulation device whereby management was attempting to smooth or shift income from one period to another. Considering the magnitude of some of the write-offs, the question that presented itself was why some of these substantial losses were not discernible or at least disclosed as a possibility in prior years. The informal remarks of executives and analysts shed more light on this curiosity than the official explanations given in annual reports.

\[13\text{"The Year of the Big Bath," Forbes.}\]
An executive of a New York brokerage firm analyzed the large number of write-offs in this way:

It was a lousy year anyway, and there's a general tendency to write off everything but the kitchen sink in such a year. For some firms, . . . write-offs in 1970 are going to jazz up 1971 results.14

A financial vice-president of one company was quoted as follows:

We had one single big write-off we decided that we should take. Once we decided on that, we tended to throw some other stuff in with it. I don't expect all the write-offs we took will stand up under Internal Revenue Service scrutiny. But even if we have to go back and reverse it sometime later, it can't do anything but help out shareholders.15

Another observer offers the following explanation:

In their zeal to achieve earnings growth, corporations have often postponed public recognition of unprofitable situations. When the problems become so bad that they can't be hidden any more, they are cut away in a drastic effort executives invariably characterize as "extraordinary."16

From an investor standpoint, one might well question the significance of conclusions drawn from an analysis of earnings or the trend in earnings in situations where management can seemingly exercise such broad discretion in the reporting of losses. From an accounting

15 "The Year of the Big Bath," Forbes, p. 43.
standpoint, one might also question the adequacy of the criteria which guides loss recognition. Is the criteria so flexible that management is able to control the timing of these items?

A search of the accounting literature reveals a surprising lack of discussion of the conceptual nature of a loss and how it fits into the contemporary accounting framework. The accounting literature abounds in the discussion of revenues and expenses with criteria for recognition specifically identified in official pronouncements. Conversely, there is a definite void in the literature concerning losses and the guidance offered is in the form of a recommendation that losses be recognized in the period they are suffered or ascertained. In this regard, Devine's comment seems pertinent—that the recommendation "... is no doubt good advice, but it remains non-operational until the criteria for 'suffered' and the necessary support for 'ascertained' are specified."\(^1\) There is mounting evidence that the recommendation is being subjected to opportunistic interpretation.

Another aspect of the problem which should be of interest to accountants in general, and investors and

other users of financial statements in particular, is the possible use of the financial bath as a means of manipulating reported earnings in such a way as to influence the impact of a material charge to income. There have been a number of allegations in the financial press that management attempts to postpone the recognition of material unfavorable events until a period perceived as convenient. Ostensibly, the objective is an attempt to minimize an expected adverse investor reaction to the unfavorable news. Presumably, an adverse investor reaction can be influenced by recognition of the unfavorable news in a period when certain conditions are present. These allegations and perceived conditions will be reviewed and evaluated in a subsequent chapter. However, if these allegations are valid, the implication is that management is engaged in a form of income manipulation for the purpose of influencing investor reaction. Since this alleged activity is implemented through the medium of accounting financial reports, serious questions can be raised about the propriety of accounting practices employed and whether they fall within the sanctions of generally accepted accounting principles.

OBJECTIVES OF THIS STUDY

The increased frequency with which material charges have appeared in corporate reports, the magnitude of the reported amounts, the fact that the financial press and the
SEC imply that many of these substantial write-offs have taken the investment community by surprise, appear to be sufficient circumstantial conditions that warrant the concern of the accounting profession. One would expect that with the presence of the above conditions, the nature of these events and the criteria for their recognition would be well-established by accounting theory. Yet a review of the literature reveals that this is not the case.

One objective of this study is to develop the conceptual nature of an accounting loss and criteria necessary for its recognition, valuation and classification under generally accepted accounting principles. This objective is a prerequisite to an analysis of any weaknesses or inadequacies in existing guidelines. In addition, it also serves as a basis for assessing the feasibility of alleged abuses that many have ascribed to this area of financial reporting.

Another major objective of this study was to empirically test whether the alleged effects ascribed to firms which implement a financial bath actually occur. A financial bath is implemented by the recognition of a large material charge to income in the current period under circumstances which suggest that management had timed the release of the unfavorable news. Specifically, tests utilizing changes in security prices are developed which measure whether investors react to the announcement that a
material loss is to be recognized. In addition the direction of investor response was determined. A final aspect of financial bath activity that was tested is whether any observed investor reaction was significantly influenced by timing the recognition of losses in a period when certain conditions were present.

Other studies to be reviewed later in this paper conclude that firms do take financial baths, that it is an increasing financial reporting phenomenon, and that there are certain conditions under which a firm is more likely to implement a financial bath than others. This study is an extension of this research and explores the rationale or motivation for implementing a financial bath along with an identification of management's perception of the benefits or effects to be derived from its implementation. Finally, whether or not these perceived benefits or effects are actually realized are ascertained.

RESEARCH ORGANIZATION AND METHODOLOGICAL PLAN

The first phase of this study focuses on establishing the conceptual nature of an accounting loss. Chapter 2 includes a thorough search of the accounting literature in order to develop the theory of loss identification and recognition under generally accepted accounting principles. Particular attention was directed toward the publications of recognized accounting authorities such as accounting
and financial professional organizations, governmental agencies, and the works of noted scholars in the field of accountancy. Following this, an analysis was made which attempted to develop the concept of a loss as a separate and distinct element in the accounting framework. Finally, a discussion of the operational aspects of the recognition, valuation and classification of losses was presented.

Chapter 3 was devoted to developing the rationale or motivation which appears to be the basis for the reporting phenomenon known as a financial bath. The financial literature was searched for references to financial bath activities and the implied consequences of such activity was noted and analyzed. Since a financial bath is implemented through loss recognition, an evaluation was made whether the concept of an accounting loss as developed in Chapter 2 is compatible with the alleged effects ascribed to financial bath activity. In other words, does financial bath activity fall within the limits of contemporary accounting practice as reflected by generally accepted accounting principles? In addition, prior research studies into the bath phenomenon are reported and evaluated. The conclusions reported in these studies provide important inputs for the tests undertaken in this study.

The major hypotheses of this study are formulated in Chapter 4. This study relied on a substantial body of research developed in portfolio theory concerning the
efficiency of capital markets. Specifically, security price returns were observed in order to assess investors' reaction to the announcement of a material discretionary loss. Several hypotheses were developed to test whether or not investors do react, whether a reaction is significantly unfavorable, and if a reaction was modified by timing the release of the loss announcement in a period when certain conditions are present. This study employed a form of the two-parameter, risk-return investment model. Commonly referred to as the Markowitz-Sharpe-Lintner simplified market-model, it linearly relates the return on individual securities \( PR_{it} \) to a market return \( PR_{mt} \) as reflected in a market index. This model is explained and defined in Chapter 4 along with the statistical tests employed. Finally, prior research which is relevant to this study are reported and evaluated.

The results of the experiment are reported in Chapter 5. Evidence gathered in the study along with the statistics from the statistical tests employed are used as a basis for accepting or rejecting the major hypotheses developed in Chapter 4. Characteristics of the experiment and sample companies were noted in order to give a clear perspective to an interpretation of results. The chapter's conclusion summarizes the major findings along with an interpretation and assessment of their implications.
A recapitulation of the study is presented in Chapter 6 which includes a summary of the major findings, an interpretation of their significance, and recommendations for future extensions of research in this area.

CONTRIBUTIONS OF THIS STUDY

The term "loss" is used extensively in the field of accountancy, yet a lucid delineation of its conceptual nature is clearly lacking. In discussing losses as a fundamental activity that should be evaluated, Bedford concludes that: "In general, the recognition of losses is one of the areas in which accounting research is badly needed." This study attempts to direct attention to an important element in the accounting framework and contributes to a better understanding of its significance as a surrogate for underlying events and relationships.

In recent years, financial analysts, the financial press and others have directed criticism toward companies who have recognized large material charges to income. The inference is that these firms are engaged in some form of deceptive reporting practice characterized by periodically taking a financial bath. This study contributes to a better understanding of the financial bath phenomenon and

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its alleged impact on investor reaction. The findings of this study have complementary implications for the fields of accounting and finance. As primary users of accounting data, investors can be aided in their investment decisions by improvements in the accounting presentation of economic events. Likewise, the prestige and importance of accountants will be enhanced if the users of its product find it useful and necessary in their decision-making processes.
An important function of accounting is to communicate information about the economic events of an entity that will be useful in making economic decisions.\(^1\) In fulfilling the communication function, accounting utilizes a set of symbols which are representations of the economic events of the entity. In other words, accounting symbols are surrogates of the events for which economic decision makers have an interest.\(^2\) Successful communication with users of accounting information depends on, among other things, a clear understanding of the accounting symbols used and how well the symbols discriminate underlying events of interest. The objective of this chapter is to examine the nature of the accounting symbol "loss" which is used extensively in the accounting


literature and appears frequently in financial accounting statements.

If the frequency with which a term is used in communication is an indication of general agreement as to the objects and events represented by the term, then the accounting symbol "loss" should be clearly delineated in the accounting literature. Yet a clear enunciation of the conceptual nature of a loss is lacking in the official pronouncements of authoritative bodies and in the accounting literature in general. Even in those instances where the term "loss" is identified, one finds inconsistencies in its usage and an overlapping with other accounting terms. The analysis to follow will point out some of these inconsistencies and attempt to identify the constitutive nature of a loss as it is used in financial accounting. The conceptual nature of a loss will then be related to the operational procedures of its measurement, recognition and classification.

IDENTIFICATION OF LOSS REFERENTS IN THE ACCOUNTING LITERATURE

Communication of information about a multitude of activities and objects by the use of symbols requires a precise delineation of the referents of the symbols. In reviewing the accounting literature it soon becomes apparent that the term "loss" is not identified with a specificity that would preclude confusion as to the referents.
Some have defined losses in terms of how it is measured; others have identified it by its effect on owner's equity, and still others see it as synonymous with the accounting symbol "expense."

In the Paton and Littleton monograph, loss is identified "... as an expiration of costs incurred without compensation or return. ..." Similarly, an American Accounting Association Committee has defined loss as "... expired cost not beneficial to the revenue producing activities of the enterprise." To identify losses as "expired cost" focuses attention on measurement and its expression in the standard unit of measure used in accounting. The number of dollars (the expired cost) is the manner in which accountants measure the activity; it is not a description of the event or activity itself. Consequently, those definitions which identify a loss as an "expired cost" are focusing on the measurement of an event rather than on the nature of the event which caused the measurement to be made. The referent of the symbol "loss" becomes the dollar measurement of the activity rather than the event itself.


Another source of confusion is whether the symbol "loss" is a separate identifiable concept in and of itself or whether it is a sub-classification of some other concept. Sprouse and Moonitz appear to identify losses as a separate and distinct concept. They define losses as "... decreases in net assets, other than (a) those resulting from distributions to owners or (b) those resulting from expenses."\(^5\) This definition conveys two important points. First, a loss is identified as a net concept and is stated in terms of asset decrements. Second, it clearly implies that losses are a separate element distinguishable from distributions to owners and expenses.

Contrast this conception of a loss with that espoused in APB Statement No. 4.

Losses are sometimes defined in the accounting literature as expired costs that produce no revenues. "Losses" of that type are a subclassification of expenses in this Statement.\(^6\) (My emphasis.)

If an object is identified as being a part of a larger class of items, then the former should possess the


characteristics of the larger class. Expense is then defined as:

... gross decreases in assets or gross increases in liabilities recognized and measured in conformity with generally accepted accounting principles that result from those types of profit-directed activities of an enterprise that can change owners' equity.7

Profit-directed activities are defined as all enterprise activities except those that involve transfers with enterprise owners. Therefore, both the Sprouse and Moonitz study and APB Statement No. 4 delineate between a loss and a distribution or transfer to enterprise owners. However, whereas the former envisions a loss as a net decrease in assets and conceptually separate from expense, the latter views losses as a gross concept and as a subclassification of expense.

To illustrate the difference in point of view, assume that an investment in securities is made for $1,000 at the beginning of a period and sold for $750 at the end of the period. Under the Sprouse and Moonitz conception, a loss of $250 results as the net of a $750 increase in the asset Cash and a $1,000 decrease in the asset Investment. Under the APB Statement No. 4 interpretation, an expense of $1,000 would be recorded as the result of a gross decrease in the asset Investment. In Chapter 1 of Statement No. 4,

7 "Basic Concepts and Accounting Principles," pp. 51-52.
it was stated that the Statement was primarily descriptive rather than prescriptive and that the ideas expressed for the most part were already accepted. The Sprouse and Moonitz study, on the other hand, was more or less normative in nature. Yet contemporary accounting practice appears to view losses in the same light as Sprouse and Moonitz—that is, a net concept separate and distinct from the concept of an expense.

The viewpoint expressed in APB Statement No. 4 is a departure from the definition that appeared in Accounting Terminology Bulletin No. 4 where loss was defined as:

1. the excess of all expenses, in the broad sense of that word, over revenues for a period, or

2. the excess of all or the appropriate portion of all the cost of assets over related proceeds, if any, when the items are sold, abandoned or either wholly or partially destroyed by casualty or otherwise written off.

This definition of loss embraces a net concept—but at two different levels of aggregation. In the first instance, loss is defined as a residual: the result of subtracting the total of all expenses recognized from the

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8 "Basic Concepts and Accounting Principles," p. 2.

9 This conclusion is based on the manner in which losses are reported in the published annual reports used in this study.

total of all revenues recognized during the period. Defined in this manner, a loss is a separate and distinct concept and in no way could be considered a subclassification of expense.

In the second instance, loss is defined on an individual basis as the residual that results from subtracting the cost from the proceeds involved in a single transaction. It is interesting to note that loss is defined in terms of costs and proceeds. In other Terminology Bulletins, the Committee carefully pointed out that revenues and proceeds were not synonymous and likewise costs and expenses were not one and the same.  

The continued indiscriminate use of the symbol loss is further evidenced by a recent Standard of the Financial Accounting Standards Board. In *Statement of Financial Accounting Standards No. 5—Accounting for Contingencies*, it was necessary to clarify the use of the term as follows:

> The term loss is used for convenience to include many charges against income that are commonly referred to as expenses and others that are commonly referred to as losses.\(^{12}\)


In other words, the Board acknowledges that some of the charges that the Statement addresses are commonly referred to as expenses while other charges of interest are commonly referred to as losses; but in the Statement both types are identified as losses. Consequently, one is given the impression that those charges commonly referred to as expenses can be conveniently considered a sub-classification of the broader concept "loss." A labor-saving device is desirable in many instances, but a pronouncement by an authoritative body on accounting matters should not sacrifice the clarity of the meaning of accounting symbols for the sake of convenience in exposition.

The above references to losses are typical of those found in the accounting literature and illustrate the confusion and sometimes contradictory conception of the accounting symbol "loss." The imprecise delineation of an important and often used symbol in a discipline which seeks to communicate economic information by the use of symbols can be a detriment to the usefulness and hence the desirability of accounting data. Careless use of a symbol in inappropriate situations can only serve to confuse recipients of the communication and propagate a further misuse of terms.
THE NATURE OF A LOSS

The word "loss" is in common usage in the English language. It has been defined as:

(1) a decrease in amount, magnitude, or degree.13
(2) a being deprived of or coming to be without something that one has had.
(3) a detriment or disadvantage from failure to keep, have, or get. 14

These generalized definitions all imply diminution, disappearance, or reduction in some quantity or quality that previously existed or could have been obtained. A loss can be interpreted as the action or process of diminishment.

A decrease in amount, magnitude, or degree is a completely neutral definition of loss. It neither implies a favorable nor unfavorable consequence nor the cause or object of diminution. Consequently, if the symbol is to communicate information effectively, it must be related to other ideas and concepts. In other words, it must have greater specificity.

Because man tends to be an acquisitive being, the symbol loss often connotes an undesirable or unfavorable situation. Those definitions which contain words such as deprivation, detriment, and disadvantage have a greater degree of specificity in that they imply that whatever

object or quality that was lost, was valued or was desired. In addition, there is the implication that as a minimum objective, the desirable or sought after consequence is to at least preserve or maintain. Failure to do so is to one’s detriment or disadvantage.

Symbols have meaning in a particular context; when the situation changes, the information conveyed by a symbol often changes. It was noted previously that the symbol "loss" in most contexts implies an unfavorable condition because something that was valued was not maintained. But if the object or quality lost was not valued or was undesirable to begin with, then its diminution would not be to one’s disadvantage or detriment. Therefore, in order to appreciate the communicative significance of a symbol, it is necessary to study the context in which the symbol is being used.

LOSS REFERENT IN FINANCIAL ACCOUNTING

In an accounting context, the term "loss" conforms to its generalized meaning; that is, it implies a decrease or disappearance of some object or quality. But in order to understand the information conveyed by the accounting symbol loss, it must be given greater specificity by identifying the object of diminishment.

Financial accounting is concerned with providing information about the economic activities of an entity.
Economic activity in the United States involves the production and distribution of goods and services by acquiring, using, and distributing economic resources. Consequently, financial accounting primarily reports on the stock of economic resources at a particular time and changes in the stock over time intervals.

Since the enterprise utilizes resources from sources other than that provided by the owners, accounting is also concerned with the equity interest of all parties who provide economic resources for the entity. This may be expressed in equation form as:

Enterprise economic resources = Equity in Enterprise economic resources

Expanding the equity interest, the equation becomes

Enterprise Economic in the enterprise economic resources = Economic resources other than by owners + Enterprise Economic resources

And more conventionally,

Assets = Liabilities + Owners' Equity

Assets then is the accounting symbol whose referents are all the various heterogeneous economic resources an entity may have at a particular time. Likewise, Liabilities and Owners' Equity are the accounting symbols which represent the equity interest in the enterprise resources. Accounting conveys this information through the medium of a financial report variously referred to as the Balance Sheet, Statement of Financial Condition or Statement of Financial
Position. Operationally an enterprise is engaged in continuous activity; consequently, the stock of economic resources and the equity in them is not static. Changes are the result of a multitude of factors, some of which are deliberate, voluntary and fortuitous while others are accidental, involuntary and unfavorable. Accounting communicates information about these changes through various financial reports such as Comparative Balance Sheets, A Statement in Changes in Financial Position, A Statement of Changes in Owners' Equity, A Statement of Changes in Retained Earnings, and an Income Statement being the most common. All these reports are designed to convey information as to the cause of changes in economic resources over a period of time as a result of operations.

If we accept the premise that business activity consists of the acquisition, utilization and disposition of economic resources and that financial accounting is concerned with communicating information about enterprise business activities, it follows that the concept of an economic resource is the focal point in financial accounting. All accounting symbols which seek to describe the stock of enterprise economic resources and changes in them are interrelated and are derived from this basic concept. If a loss describes a process of diminution or disappearance of some object or quality in general, then specifically in a financial accounting context, the objects of diminishment
are the economic resources under the stewardship of the entity. It follows that the nature of an accounting loss can be derived and operationally defined from an analysis of the nature of enterprise asset decrements.

ENTERPRISE ASSET DECREMENTS

The stock of enterprise economic resources may decrease as a result of returning resources to those who have a legal equity interest in the resources of the entity. Some examples in conventional practice would be when the enterprise utilizes cash or other resources to satisfy liability claims such as: accounts and notes payable, interest and wages payable, bonds and mortgages due. Economic resources such as cash or other assets may also be returned to stockholders in the form of cash or property dividends. Conventional accounting practice does not view the reduction of resources of this type as losses but rather as a transfer or a distribution of resources to those who have a claim to those resources in accordance with the legal rights inherent in the contracts with the entity. In a technical sense, there has been no diminishment or disappearance of resources. The resources and their capacity to satisfy wants are still intact; they only have been transferred from the realm of stewardship, responsibility and accountability of the entity.
Individually, any one resource may decline only to be offset by an increase of equal magnitude in any one of a number of other resources. In the aggregate, however, total resources under the stewardship of the entity have not diminished, only the composition has changed. From the accounting viewpoint, this type of occurrence is not a loss but rather an exchange. There are numerous examples in practice: cash is exchanged for supplies, inventory items, equipment, patents, etc.; accounts and notes receivable, investments are exchanged for cash. Individual resources are often combined, the objective being to create new resources which have at a minimum the same capacity to satisfy wants as the individual resources had that were used in combination. To the extent this is accomplished, there is no diminution of total resources under the stewardship of the entity.

The process of acquisition, combination or utilization and finally the exchange of economic resources is the essence of business activity. In a free-enterprise capitalistic system, the incentive to commit resources in an effort to produce goods and services which satisfy wants is the opportunity to enhance the owners' equity in economic resources over and above the amount originally committed. In a business venture, the objective of acquiring, combining, and utilizing economic resources is to create time, place, or form utility which can be exchanged for economic
resources greater than those expended in the effort. To the extent the enterprise is successful in this effort, those economic resources generated in exchange over and above those expended are the rewards of business activity, and cause an increase in the owners' equity in economic resources under the stewardship of the entity. In financial accounting, the symbol "income" is used to represent the increase in enterprise economic resources that accrue to the owners because of successful business activity.

Analogous to the opportunity for economic resource enhancement as the incentive to engage in business activity and "income" as the reward representing successful accomplishment, there are also associated risks. Engaging in business activity involves the risk that economic resources will be expended or disappear without creating utility equal to the economic resources diminished in the effort. Such an occurrence may be referred to as unsuccessful business activity or lack of accomplishment. The consequence of such an occurrence is a diminution in enterprise economic resources which in turn causes a contraction of the owners' equity in enterprise resources. It is in this context that the accounting symbol "loss" derives its meaning and separate identity from other accounting symbols. In financial accounting, the surrogate "loss" represents the diminution in enterprise resources that accrue to the owners because of unsuccessful business activity. It is
the antithesis of the symbol income. In a capitalistic system, it is the penalty borne by those who commit economic resources to an enterprise for business activity and that entity is not successful in maintaining the aggregate of resources committed to its stewardship.

NATURE OF AN ACCOUNTING LOSS

From the foregoing analysis, a loss in a financial accounting context may be defined as:

A diminution or disappearance of enterprise economic resources which is the result of unsuccessful business activity. The circumstances under which this occurrence takes place is when enterprise economic resources are expended or disappear without creating an equivalent utility.

Thus far, the nature of an accounting loss has been described in terms of its constitutive meaning. No reference has been made as to how the loss is measured or the operations necessary to establish the existence of a loss. This was intentional because the nature of an event or action should be separately distinguishable from the manner in which it is measured. Yet, if a term is to have maximum communicative capacity, the operations necessary to establish its existence and the manner in which it is measured along with its constitutive meaning must be identified in order to develop a precise meaning of the term in a financial accounting context. This process is known
as giving operational content to a concept. 15

Although an accounting loss is constitutively concerned with economic resources, it also has a qualitative interpretation that implies that an assessment has been made of each event or action that affected an enterprise resource. These events or actions may have been initiated by or within the entity itself, or its origin may have come externally from other entities or the environment in which the enterprise operates.

Financial accounting reflects this assessment on a periodic basis by using the following model:

Revenues - Expenses = Net Income (or Loss)

Income was previously identified as the increase in enterprise economic resources accruing to owners as a result of successful business activity. Its antithesis, loss, was identified as the decrease in enterprise resources that accrue to the owners as a result of unsuccessful business activity. The qualifying term net, which precedes income or loss in the accounting model, implies a final result; that is, the residual of the total of successful and unsuccessful activities. Operationally then, a loss comes into being by subtracting expenses from revenues with the former being greater than the latter.

The operation in and of itself is clear, yet the conventional view of revenues and expenses is not consistent with the end result as defined in the model. Since both revenues and expenses seek to explain changes in the stock of economic resources, they too find their constitutive meanings in the form of economic resources.

Historically, the association between expense and revenues has been based upon a cause and effect relationship.¹⁶ That is, expenses are viewed as the economic resources under the stewardship of the entity which are utilized individually or in combination in an effort to create time, place or form utility. For example, Sprouse and Moonitz define expense as:

. . . the decrease in net assets as a result of the use of economic services in the creation of revenues or of the imposition of taxes by governmental units.¹⁷

Similarly, Bedford views expenses as "... the cost of the services used up to provide the recognized revenues."¹⁸

And finally and perhaps more completely, Hendriksen defines expenses as:

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¹⁷Sprouse and Moonitz, p. 9.

... the using or consuming of goods and services in the process of obtaining revenues. They are the expirations of factor services related either directly or indirectly to the producing and selling of the product of the enterprise.\textsuperscript{19}

These particular interpretations of the nature of an expense are quite representative of the expositions on expenses that appear in the accounting literature. All reflect the view that expense represents the process of resource utilization in order to create a product or service which can be exchanged for resources (revenues) at least equal to those expended.

Revenues have been viewed as the economic resources received in exchange for the efforts expended. In other words, revenues are the result or accomplishment of the effort of utilizing resources to create utility. In this association between expense and revenue, the latter tended to dominate the relationship in financial accounting. This is illustrated in the recognition rules which held that the receipt of revenues signaled the appropriate time for expenses to be recognized. Historically, revenues also have been interpreted as a measure of the volume of regular operations and expenses the effort necessary to support that volume.\textsuperscript{20}


The preceding discussion focuses attention on the fact that, traditionally, the interpretation of revenues and expense has been closely identified with events involving the production of goods and services in the regular course of business. But what about events which cause an increase or decrease in enterprise economic resources in the course of operations, yet are not related to the production of goods and services? There are many examples in practice: equipment no longer needed is sold; a fire destroys a building; inventory items disappear as a result of theft; damages are paid in the unfavorable settlement of a lawsuit. Accounting has traditionally attempted to distinguish these types of events from those that occur in the normal course of producing a product or service. This distinction has primarily been made in the manner in which the events are recorded and reported. For example, in Accounting Terminology Bulletin No. 4, the Committee determined that in financial statements, the term expense is appropriately limited to the normal, recurring type of items such as operating, selling or administrative expenses, taxes and interest. Whereas the term loss should be used in describing the result of specific transactions which are netted in order to distinguish them from the "... normal

21Sprouse and Moonitz, p. 50.
expenses of a recurring type which are generally shown in gross amounts."  

Likewise, in APB Statement No. 4, in discussing principles of financial statement presentation, the following view is expressed:

Revenues and expenses from other than sales of products, merchandise, or services may be separated from other revenues and expenses and the net effects disclosed as gains or losses.  

This type of presentation is deemed informative and useful in assessing an entity's future prospects. It also is reflective of the nature of business activity. The utilization of resources, individually and in combination, in the process of creating goods and services results in a joint consumption of resources over varying time intervals. At the time of consumption of any one resource, it is difficult if not impossible to make an assessment as to the eventual quantum of resources (revenues) that will eventually result. Consequently, the diminution in resources utilized are recorded in full (gross) to be combined and aggregated with similar diminishments and eventually compared (matched) with the resources generated in a specified period of time. This may be viewed as a composite assessment of the contribution rendered by each resource, individually

\[\text{22AICPA, "Accounting Terminology Bulletin No. 4," pp. 42-43.}\]

\[\text{23Statement of the Accounting Principles Board No. 4, pp. 94-95.}\]
and in combination, to the revenues that have been recog-
nized in a specific time interval.

A composite assessment of events involving the pro-
duction and sale of goods and services is generally ne-
necessary because of the joint contribution of resources
utilized and the varying lengths of time a contribution
is rendered.

Events other than those concerned with goods and
services are generally subject to a greater degree of
certainty as to the eventual impact on enterprise resources.
The resources involved are identifiable and limited as to
the extent of joint effects with other resources. For
this reason, it is generally feasible to make an immediate
assessment of the effect on total enterprise resources at
the time a diminution takes place. As a result, the related
inflows and outflows of resources are not recorded as
revenues and expenses, but rather a net increase or decrease
in enterprise resources is recorded directly along with the
assessment that a gain or loss has resulted from the event.
Constitutively, then, revenues and expenses are represented
by gross increases and decreases in enterprise resources;
whereas, gains and losses represent net increases and de-
creases in enterprise resources. The presence of revenues
and expenses indicates that a composite assessment of their
effects on total enterprise resources is yet to be made;
whereas, the presence of gains or losses indicates that an assessment already has occurred.

From the foregoing analysis, it appears undesirable and conceptually inaccurate to describe or view a loss as an expense or a sub-classification of an expense. This view is implicit in the accounting model of:

Revenues - Expenses = Net Income or Loss

Alternately, it is sometimes expressed as:

\[
(\text{Revenues} + \text{Gains}) - (\text{Expenses} + \text{Losses}) = \text{Net Income or Loss}
\]

where gains and losses are sub-classifications of revenues and expenses respectively.

Conceptually, a more representative expression based upon the constitutive nature of the symbols involved would be:

\[
\text{Gain or loss from} \quad \text{Revenues} - \text{Expenses} = \text{rendering products} + \text{or services}
\]

Gains - Losses = Net Income or Loss

One final aspect that should be addressed in the use of the symbol loss is the level of aggregation which the symbol represents. The term loss is frequently used in the sense of the result of a single event or transaction. Used in this context, it is common to attach descriptive terms which identify the type of resources diminished and the cause of the diminution. For example, some of the common loss identifications are: loss on sale of
securities, loss on the abandonment of equipment, equipment fire loss, loss on inventory reduction to market.

The symbol loss is also used in a total or aggregate sense to reflect the total diminution of enterprise resources that resulted from business activity for a specified period. It implies the total or final result of all the individual events that were identified and assessed immediately and the composite net assessment of numerous events incurred in the normal course of producing and selling goods and services. Used in this context, the qualifying term net is conventionally employed to indicate a final or total result.

The identification of a loss in financial accounting is a prerequisite to a discussion of its measurement, recognition and classification. The remainder of this chapter focuses on these operational aspects.

Measurement of an Accounting Loss

Thus far, losses have been discussed in terms of a diminution of economic resources without reference to the manner in which a diminution is measured in financial accounting. Since losses represent resources that have diminished or disappeared, it follows that the measurement of this diminution can be derived from the manner in which economic resources are measured.

Economic resources can be identified as the scarce means necessary to produce goods and services which in turn
satisfy human wants. They are said to be scarce because their quantities are limited relative to the multiplicity of uses in satisfying wants. They are distinguished from free resources which also have the capacity to satisfy wants but in an unlimited manner since their quantities are infinite.24 Free resources such as fresh air, sunshine, good climate, etc., do not appear as enterprise resources from the accounting standpoint, since they are beyond the realm of stewardship, responsibility and accountability of the entity.

Financial accounting is only concerned with economic resources which, because of their limited quantities relative to their uses, require an economic sacrifice. In an exchange economy, one commodity is chosen as the medium of exchange in order to facilitate the transfer of heterogeneous resources between parties. In the United States, the dollar is the medium of exchange, and the ratio between dollars and resources is the price of that resource. The dollar has also been adopted as the basic unit of measurement in financial accounting and all the heterogeneous objects and activities of an entity are expressed in terms of that one standard, a common denominator—the dollar. Under contemporary accounting practice, the stock

of economic resources and changes in that stock find their expression in dollar amounts. When economic resources are acquired by an entity, they are initially accounted for at the dollar amount given in exchange or the cash equivalent of other resources given in exchange. Economic resources may be tangible or intangible in nature but it is their capacity to satisfy wants and their limited availability that commands a price. When a resource is acquired, the attribute or characteristic of the resource which is perceived as having the capacity to provide benefits is assigned the dollars given or the cash equivalent of other resources given in exchange. Changes in the attribute or characteristic of the economic resource should be accompanied by a proportionate change in the dollar expression of that resource in financial accounting.

A loss occurs in a situation where economic resources are utilized or disappear without creating an equivalent utility. An equivalent utility in this sense refers to the generation of economic resources at least

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25 The discussion of dollar assignments refers to the conventional practice of measuring resources in terms of historical acquisition cost, commonly referred to as the cost principle. Measurements based upon replacement costs, exit values, discounted present values or price level adjusted costs are beyond the scope of this study.

26 A time lag may occur in practice between the change in an economic resource and a change in its dollar expression as a result of recognition rules conventionally followed.
equal to those expended. Stated in terms of the accounting mode of measurement and expression, an equivalent utility refers to the generation of a number of dollars at least equal to the dollars expended. Failure to do so results in a deficiency in terms of a number of dollars, and represents the accounting measurement and expression of the diminution of economic resources that has occurred.

Conceptually, the expression and process of measuring a loss is clear and straightforward, yet there are many practical difficulties in arriving at a measurement. Foremost among them is the uncertainty as to the eventual consequences of a particular event. At the time an event occurs it may be difficult to assess the total resources that may be generated (measured in terms of dollars) or the total resources that have been expended or will be expended (measured in terms of dollars). As a consequence, many of the dollar measurements that appear in financial accounting statements (losses included), are based on an estimate of the eventual outcome of an event. Accounting relies heavily on objective evidence not only to support the reasonableness of an estimate, but also to substantiate that an event has occurred and should be measured and reported. The following section addresses the problem of loss recognition under present generally accepted accounting principles.
Loss Recognition

Accounting recognition refers to the point in time in which an event is given formal recognition in the accounting records. In other words, a change in an entity's economic resources "... has become sufficiently definite and objective to warrant recognition in the accounts." Since a major function of accounting is to provide information about enterprise business activity at periodic intervals, it is important in an assessment of the entity's progress that the impact of events is reflected in the reporting period in which they occur. Concerning loss recognition, Bedford emphasizes the importance of this point as follows:

... the greater the correlation between the loss of services and their recognition, the better the measurement. An inconsistent or varying recognition point tends to preclude interpretation of measured amounts.28

Under conditions of certainty, a loss would be identified and given accounting recognition at the time economic resources diminish or disappear without creating an equivalent utility. Unlike expenses, whose recognition are closely related to the revenues recognized in the period, losses by their nature cannot be associated with current

27Committee on Accounting Concepts and Standards, p. 3.

period or prospective resource inflows. Consequently, contemporary accounting practice requires that losses be recognized in the period they are suffered or in the period they are ascertained. To fully appreciate the practical problems involved in loss recognition, it is necessary to analyze the characteristics of economic resources which signal that a diminution has taken place.

The first attribute to be considered may be referred to as the quantitative character of all economic resources. An enterprise may have one building, ten thousand units of merchandise, three thousand accounts receivable, four secret processing formulæ and any number of other quantities of resources. The quantitative character of economic resources is the numerical expression of its existence. A decrease in the numerical quantity of a resource without providing an equivalent utility signals that a loss has occurred. For example, if a fire completely destroys one hundred units of inventory and one hundred accounts receivable records, there has been a numerical reduction of two types of resources: one tangible and the other intangible. Of central significance is the fact that any one unit of inventory or any one account receivable record destroyed possessed the potential to provide benefits, but this potential was never realized because the quantitative units possessing the potential no longer exist. Casualty losses, such as those resulting from fire,
flood, theft, or other destruction do not generally cause any problems in terms of when the lost resources should be recognized. The evidence necessary to substantiate the loss is apparent, there being no uncertainty as to the definiteness and permanence of the diminution.

Problems do arise, however, in situations where there has been a diminution in the utility of a resource even though it may still be physically present in its quantitative sense. This factor may be referred to as the utility characteristic of a resource and from an accounting standpoint, its existence or lack thereof, is much more difficult to establish. The quantitative character of a resource can be established by observation and count, but the utility characteristic refers to the capacity of a resource to eventually generate an inflow of resources either through utilization or by exchange. Stated in terms of the accounting unit of measure, it is the capacity of a resource to eventually generate a dollar inflow at least equal to the dollar amount assigned to the resource. To the extent that it has this capability, it is an enterprise economic resource and is given the accounting recognition of an asset awaiting the realization of this potential benefit. Should there be a partial impairment or a complete disappearance of this capacity to realize anticipated benefits, then a loss has been suffered and should be given accounting recognition. Changes in the
utility of a resource can be caused by a variety of factors, the majority of which stem from environmental factors such as competition, changes in consumer tastes, technological advances and governmental decree. Some utility changes are abrupt and readily apparent as in the case of a governmental decree prohibiting the use of certain ingredients or sale of certain products. In many other instances, utility changes are gradual and continuous and only become apparent after several successive intervals of time. It is this type of change which presents some difficulties in the recognition of losses and the procedure generally followed is to recognize the loss in the period it is ascertained. The practical problem, of course, is to evaluate the adequacy of the evidence to substantiate the discovery that a loss exists. The evidence deemed necessary may vary according to the type of resource lost but can include:

1. A verifiable market decline such as in the case of a decline in the market value of marketable securities, investments and inventory items below their cost.

2. An exchange transaction with an outside party such as the sale of land, buildings, equipment, patents, copyrights, or a major segment of the business at less than book value.

3. A discretionary management decision to write-off, write-down, or abandon such as the decision to write-off goodwill, or write-down or abandon plant and equipment items.

Whether or not the evidence is convincing enough in each instance generally requires the use of judgment.
In the first case, evidence must be gathered to determine whether the decline in market value is the result of specific adverse conditions that affect a particular company's securities or whether the decline is due to general economic or market conditions. In either case, a judgment must be made as to the permanence of the market decline and the prospects for recovery. As regards to a decline in the utility of inventories, generally accepted practice requires that

Where there is evidence that the utility of goods, in their disposal in the ordinary course of business, will be less than cost, whether due to physical deterioration, obsolescence, changes in price levels, or other causes, the difference should be recognized as a loss of the current period. This is generally accomplished by stating such goods at a lower level commonly designated as market.  

Implementation of the lower cost or market convention requires that evidence be gathered for replacement values, selling prices, costs to complete and dispose and perhaps information concerning normal margins.

In the second case, an exchange with an outside party involving the disposition of resources at less than its carrying value is sufficient evidence that a loss has been incurred. Although an exchange confirms the fact of a loss, it does not necessarily provide evidence that the loss in utility occurred in the current period. Physical

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disposition of a resource often lags behind a loss in utility and it must be remembered that the decision to dispose is an option of management.30

A discretionary management decision to write-off, write-down or abandon probably provides the least objective evidence that a loss has been incurred in the period it is being recognized. It is a fact that business activity takes place in a climate of uncertainty as to the eventual outcome of various entity actions. A decision by management to acquire an economic resource reflects, at the least, an optimism that the utility of this resource can be maintained. When circumstances indicate that there is no basis for maintaining this optimism, there may be a reluctance on the part of management to make this admission. The tendency to delay recognition in the hope that circumstances may change is not an uncommon occurrence. In these instances, the discretionary decision to recognize a loss is again more of a confirmation that a loss has been incurred rather than evidence that the loss in utility occurred in the current period.

A final aspect of the difficulties encountered in loss recognition concerns what may be referred to as loss contingencies. A loss contingency has been defined as

. . . an existing condition, situation, or set of circumstances involving uncertainty as

to possible loss to an enterprise that will ultimately be resolved when one or more future events occur or fail to occur.\footnote{FASB, p. 1.}

Thus far, the practical problems in loss recognition primarily concerned the lag in recognition behind the loss in resource utility. A loss contingency provides the environment for a similar recognition problem except the procedure is reversed. That is, the loss is given accounting recognition before there has been a diminution in economic resources. In recent years, there have been a number of instances where companies appear to be anticipating future expenses and losses by setting up provisions for general contingencies in the current period. This has the effect of improving future results by understating the results of the current period.\footnote{Leopold A. Bernstein, "Reserve for Future Costs and Losses," Financial Analysis Journal, XXVI (January-February, 1970).} Justification for this practice often found its basis in the principle of conservatism. That is, "anticipate no gains and provide for all possible losses." Conceptually this justification has no merit inasmuch as the objective of income determination is to report on the changes in economic resources that have taken place as a result of operations in a specified period. Fortunately, the Financial Accounting Standards Board reaffirmed the view that an accounting loss
represents a diminution in economic resources and should not be recognized unless:

(a) Information available prior to issuance of the financial statements indicates that it is probable that an asset had been impaired or a liability had been incurred at the date of the financial statements. It is implicit in this condition that it must be probable that one or more future events will occur confirming the fact of the loss.

(b) The amount of loss can be reasonably estimated.\textsuperscript{33}

To summarize, the accounting recognition of losses in the same period in which the diminution in resources takes place is important in arriving at a periodic assessment of an entity's progress. A loss in resources manifests itself in two ways: (1) as a reduction in the quantitative character of a resource which is the numerical expression of its individual units, and (2) as a diminution in its utility character which is a resource's capacity to eventually generate dollars at least equal to the number of dollars assigned to the resource.

A numerical reduction in the units of a resource is not particularly troublesome in loss recognition. The evidence necessary to substantiate the loss is apparent and convincing. On the other hand, the evidence gathered to support a loss in the utility of a resource is generally less convincing, relying primarily on judgment for

\textsuperscript{33}\textsuperscript{33}FASB, p. 4.
its interpretation. The practical difficulties to avoid from an income determination standpoint is the premature recognition of a loss before, in fact, there has been a diminution in resources and the recognition of losses in periods subsequent to the time resources in fact diminished. Either occurrence is undesirable and can lead to misleading financial information and the interpretation thereof.

Classification of Accounting Losses

Classification in accounting refers to the grouping of items that have some common property or attributes. Classification schemes can and do serve a variety of purposes, but one that emphasizes the nature and regularity with which events occur appears to be particularly useful in predicting the future prospects of an entity.

Losses have been described as operating and non-operating, expected and unexpected, ordinary and extraordinary, discretionary, catastrophic, gross, net, and a variety of other qualifying terms. These classifications are not mutually exclusive nor are they only applicable to losses, but they do attempt to facilitate interpretation of the nature and the frequency with which events may be expected to occur. These qualifying categories, however, have not been well-defined in the accounting literature; at least not to the extent that definitive judgments can be made.
With regard to the manner in which losses appear on income statements, contemporary accounting practice tends to focus attention on the regularity with which the item is likely to appear. An operating loss indicates that the current effort in rendering a product or service was not successful and it is often interpreted as some indication of the company's immediate future prospects.

APB Opinion No. 9 established the extraordinary category as a separate classification on the income statement. APB Opinion No. 30 extended the focus on the extraordinary classification by clarifying the criteria necessary for inclusion in this category. For a loss to be classified as extraordinary, it must be the result of an event or transaction which is both unusual in nature and infrequent in occurrence, due regard being given to the environment in which the entity operates. If a loss is material and is the result of events or transactions which are unusual or occur infrequently, but not both, they should be reported as a separate component of income. "Gains or losses of a similar nature that are not individually material should be aggregated." The Opinion is not specific whether this latter type should be reported


36Ibid., p. 568.
separately, although it is common practice, even though conceptually undesirable, to combine these losses under the expense category. APB Opinion No. 30 also establishes a new classification for the effects of events and transactions involving the disposal of a segment of a business. Losses should be separately classified on the income statement if they are the result of a disposal of a major segment of the business. In addition, the net operating loss of the discontinued operations should also be reported separately.

To summarize, then, a loss appears on the income statement under one or more of the following classifications:

1. As an operating loss (primarily as a result of rendering a product or service)
2. As an extraordinary item
3. As discontinued operations
4. As a separate, infrequent, material and unusual
5. As a separate, infrequent, material and unusual
6. As an event that does not qualify as one of the previous categories.

Paton made the comment that:

Classification of losses is of purposes of convenience. A method is adequate if it is adequate for the purposes in hand. 37

Until such time as the objectives of financial statements are definitively determined, any classification scheme will be somewhat arbitrary and difficult to interpret.

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1. As an operating loss (primarily as a result of rendering a product or service)
2. As an extraordinary item
3. As discontinued operations
4. As a separate item if material and unusual
5. As a separate item if material and occurs infrequently
6. As an expense if it does not qualify as one of the previous five categories.

Paton made the observation that:

Classifications are primarily for purposes of convenience; a particular grouping is adequate if it satisfactorily serves the purposes in hand.\(^{37}\)

Until such time as the purpose or objectives of financial statements are definitively determined, any classification scheme will be somewhat arbitrary and difficult to interpret.

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SUMMARY

To summarize thus far, it has been determined that the accounting symbol "loss" is a significant symbol in financial accounting notwithstanding the lack of a clear delineation of its nature in accounting theory. A review of the accounting literature illustrated a variety of interpretations some of which are contradictory and others which appear to overlap in meaning with the accounting symbol expense. The term loss refers to the process or action of diminishment in general. Specifically in a financial accounting context, it refers to the diminution of enterprise economic resources as a result of unsuccessful business activity. This situation occurs wherever economic resources are utilized or disappear without creating an equivalent utility. Operationally, a loss comes into existence in financial accounting as the result of a process of comparing or matching the resource inflows and outflows emanating from an event or transaction. This assessment of a total diminution in economic resources can be made at the time the event or a transaction takes place and finds its primary application in those situations where all the resources involved can be identified and their impact on total enterprise economic resources can be isolated from other events and transactions. Or an assessment can be made after a composite accumulation of gross inflows (revenues) and outflows (expenses) from a group
of related events and transactions have taken place. This type of assessment finds its applicability in situations where there are events and transactions whose individual impact on total economic resources cannot be isolated and assessed without considering the joint implications of related events and transactions. The multitude of activities required to render a product or service and the varying periods over which events take place usually necessitates a composite assessment of the type just described.

An accounting loss represents that portion of an economic resource which has been expended or which has disappeared without creating an equivalent utility. Consequently, a loss is measured and expressed in the same manner that economic resources are measured and expressed. Conventional accounting practice requires that the acquisition of an economic resource is properly measured and expressed in terms of the number of dollars paid (historical cost) or the dollar equivalent of other resources given in exchange for the resource. Acquisition cost is assigned proportionately to the attribute or characteristic of the resource which is perceived as possessing utility. A diminution in the attribute or characteristic is expressed as a proportionate decrease in number of acquisition dollars. If the diminution does not result in the creation of an equivalent utility, then the dollar reduction is the accounting measure and expression of the loss.
Conceptually, losses should be given accounting recognition in the same period that a diminution in economic resources takes place. Loss recognition involves the gathering of evidence to substantiate that a diminution in economic resources is sufficiently definite and permanent to warrant accounting recognition. Resource diminutions which are the result of a numerical reduction of the quantitative units of a resource do not usually present recognition problems. The evidence to substantiate the loss is obvious and convincing. Resource diminutions, however, which are the result of a partial or complete impairment in the utility of a resource are much more difficult to ascertain. Recognition often depends upon a discretionary judgment that a loss exists. In practice, two difficulties with similar consequences are often encountered. First, a loss may be recognized prematurely before a diminution in resources has taken place, or, second, a loss may be recognized in a period subsequent to the period the diminution actually occurred. In either case, whether intentional or inadvertent, the consequence is a distortion of the current period's results.

The classification of losses as well as other items on the income statement are grouped in a manner which tends to emphasize the nature and frequency with which events occur. This type of presentation is thought to be useful in predicting an entity's future prospects. Classifications
such as operating, non-operating, ordinary, extraordinary, discretionary, catastrophic, and unexpected are frequently used in grouping losses in published income statements. These various qualifying terms are not mutually exclusive nor or they well-defined in the accounting literature.

Classification schemes are somewhat arbitrary and are useful if they serve some purpose. Until such time that the purpose or objectives of financial statements are generally agreed upon, classification of items on the income statement will continue to overlap in an attempt to serve a variety of non-specified purposes.
Chapter 3

THE FINANCIAL BATH REPORTING STRATEGY

Income determination and its presentation in financial statements is of the utmost significance to parties who have an interest in the economic activities of an enterprise. This point is addressed in the AICPA's Objectives Study as follows:

Users' continuing needs for assessing performance make the measurement of periodic earnings an overriding matter. There is an inexorability about the calendar. Economic decision-makers want information which is sufficiently timely to assist them in assessing a company's accomplishments over relatively short periods.¹

Many of the conventions employed in contemporary accounting are attempts at arriving at an objective assessment of a firm's economic success over a period of time. Recognition rules, estimations, allocations, and the like are all indispensable in arriving at some meaningful measure of performance notwithstanding the uncertain environment under which these calculations are made.

Income for a period and the trend in earnings over several periods is a significant historical input in arriving at an assessment of a firm's future prospects. Consequently, it is exceedingly important that accounting recognition be given to economic resource changes in the same period as the changes take place. To the extent that this is accomplished, useful relationships may be established between events and environmental conditions existing at a particular time and their impact on the economic resources of the entity.

As indicated in Chapter 1, there have been frequent criticisms in the financial literature which allege that some firms are employing accounting and reporting practices which tend to smooth reported income, thereby impairing the analysis of earnings in the current period and the trend in earnings over several periods. The inference is that these firms are engaged in some form of deceptive reporting practice. This phenomenon is commonly referred to in the financial press as taking a "financial bath."

The objective of this chapter is to examine this alleged activity by specifying what it is, the motivation for its occurrence, how it is implemented, and to examine related research into this topic. In addition, the points of investigation for this study are developed in this chapter and empirically tested in a subsequent chapter.
IDENTIFYING A FINANCIAL BATH

The expression "taking a financial bath" has been used frequently to describe the sudden appearance of a material charge in a company's income statement under conditions which suggest that management has timed the release of the unfavorable news. In other words, it implies a conscious effort on the part of management to control the release of the financial impact of events. Consequently, it is a behavioral assertion which infers an effort on the part of management to manipulate reported income.

The question that immediately arises is why management would be motivated to time the recognition of losses. Some insight into this question is provided by Hepworth when he suggested that:

. . . a relatively stable level of periodic income lies in the area of management relations with investors and workers. . . . the owners and creditors of an enterprise will feel more confident toward a corporate management which is able to report stable earnings than if considerable fluctuation of reported earnings exists.²

Similarly, Gordon suggested that it is in management's self-interest to choose available accounting measurement

alternatives which will smooth reported income and the rate of growth in income. There have been numerous attempts to empirically test whether management does in fact choose specific alternative methods of accounting to smooth reported income, but the results have been inconclusive. Yet the financial bath is frequently cited as a financial reporting strategy which management employs to shift income from one period to another, thereby being able to report less dispersion in the year-to-year income pattern. How does a financial bath facilitate this objective? Allegedly, the bath involves the release of the effects of materially unfavorable events that have accumulated over a number of years, all at one time in the current period. Even though current year's income will be depressed, management would be able to show a better earnings picture over several prior years before the year of the bath. There may even be an incentive to over-estimate the adverse effect in the year of recognition so as to provide a reserve or


cushion for future years if needed. Figure 1 illustrates the consequences of a financial bath.

**Entity Reporting Spectrum**

<table>
<thead>
<tr>
<th>Prior Years</th>
<th>Current Year</th>
<th>Future Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resulting in over-statement of income in prior years</td>
<td>(Financial Bath) Large material loss is recognized that Relates to resource diminutions of prior years that were not recognized in prior years</td>
<td>Resulting in over-statement of income in future years Relates to resource diminutions of future years that will not be recognized in the future</td>
</tr>
<tr>
<td>Does not appear to relate to events of the current period</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resulting in an understatement of income in the current period</td>
<td></td>
<td></td>
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</tbody>
</table>

**Figure 1**

Consequence of a Financial Bath

Of course, implementation by management must be within the existing limits of generally accepted accounting principles as they pertain to loss recognition. Successful
implementation requires that management be able to exercise discretion as to the recognition of losses and of equal importance, they should choose an opportune time period for recognition—that is, a period in which public knowledge of the loss would have a minimum negative impact. The following section assesses management's flexibility as to loss recognition and a subsequent section will analyze the conditions under which recognition is likely to be initiated.

MANAGEMENT JUDGMENT

A company is said to be taking a financial bath when it currently recognizes a large material charge to income which does not readily appear to be the result of events that have taken place in the current period. Prior to APB Opinion No. 30, these items frequently made their appearance on income statements as extraordinary items. Currently, however, they are likely to be reported under discontinued operations or as a separate item on the income statement. In all cases they are reported as losses and not expenses.6

5 The provisions of APB Opinion No. 30 specifically exclude certain types of events that previously would have been classified as extraordinary under the provisions of APB Opinion No. 9.

6 Even though APB Opinion No. 30 specifies certain events as being usual in nature and can be expected to recur, this identification is for purposes of determining
In Chapter 2, it was determined that the criteria for loss recognition under generally accepted accounting principles centered on the concept that a loss should be recognized in the period it occurs or when it is ascertained. The greater the correlation between the loss of economic resources and their recognition, the more meaningful the measurement in describing underlying events and activities of the entity. It was also noted that a diminution in economic resources without creating an equivalent utility can occur in two forms:

1. As a numerical decrease in the quantity of a resource, and

2. As a partial or complete impairment in the utility of a resource.

In the first case, a loss as a result of a numerical decrease in the quantity of a resource is generally the result of some casualty such as fire, flood, earthquake, theft, etc. The evidence necessary to substantiate the loss is likely to be apparent and convincing. It appears extremely unlikely that management would have any other option but to recognize the loss in the same period that it occurred. The appearance of this type of loss in an entity's income statement could hardly be the basis for making an assertion that management is attempting to whether an event is extraordinary; it does not imply a distinction between an expense and a loss.
manipulate income when in most instances management has very little control over recognition of these events.

In the case where the utility of an economic resource is impaired, the availability of evidence to substantiate the loss is not always apparent. As a consequence, a loss may be recognized in a period when a judgment is made by management that a resource has been impaired. It is conceivable then that management could choose, for one reason or another, to delay recognition of the loss until some subsequent period. This possibility stems from the fact that, in most instances, the resource is still physically present in its quantitative sense even though it has lost its capacity to generate resources in the future.

It is this type of situation where management appears to be able to exercise discretion when the loss will be recognized. And it is this type of situation where the accusation of taking a financial bath usually occurs. As an extension of this same situation, "bath behavior" is also attributed to those situations where, allegedly, management makes a premature judgment that a loss has been incurred. That is, recognition is made currently for future anticipated diminutions in resources.

To summarize, then, generally accepted accounting principles require that a loss be recognized whenever it is incurred or ascertained. Ascertainment that a loss
has been suffered in many cases is dependent upon a management judgment that it exists and a decision that it should be recognized. Often a loss in the utility of a resource precedes its actual physical disposition, hence its recognition is not evidenced by an exchange transaction with an external independent party. Its recognition primarily rests upon a judgment by management that it exists. Under these circumstances, it is conceivable that management could exercise its discretion in recognizing a loss in order to manipulate reported income.

TIMING OF A FINANCIAL BATH

A financial bath reporting strategy involves reporting all the so-called bad news at one time thereby restricting any negative reaction to that period. Of central importance then is for management to choose the "right" time period to make the revelation. Presumably, investors prefer projects that result in gains and increased earnings and tend to judge the ability and efficiency of management on the basis of this criteria. Projects which result in losses and the reporting thereof would, in all probability, be perceived by management as an undesirable situation reflecting unfavorably upon their administration. Since it has been determined that the criteria for loss recognition does allow for some flexibility or discretion as to recognition, it is not at all
inconceivable that management might attempt to postpone recognition of unfavorable news until a period perceived as convenient—that is, a period in which public knowledge of the loss would have a minimum negative impact.

What then are some conditions that management might perceive as being conducive in implementing a financial bath? In reviewing the financial literature, the following four conditions are frequently mentioned: (1) a change in top management, (2) a decline in the level of income, (3) the presence of an extraordinary gain, and (4) a decline in the market value of the entity's stock. The rationale why each of these conditions might provide an environment conducive to implementing a financial bath is analyzed in this section.

**Change in Top Management**

A change in top management appears to be a convenient time to recognize material charges and write-offs. Past mistakes can be cleaned up with one sweep and the blame leveled against the old management, thereby setting the stage for an immediate recovery under the new leadership. Commenting on this possibility, Bernstein cautions that this is also a likely time when reserves for future costs and losses are likely to be established. The objective of these vague all-purpose reserves is "... to relieve future income of costs and expenses properly
chargeable to it." In this way, the new management can assure improved future operating results immediately. This phenomenon is often described as "moving income downstream to future years where it may be needed to provide a smooth growth curve." In his 1966 empirical study, Bernstein found only two instances where over-provisions of loss reserves were subsequently reversed. However, he did observe that charges made to previously recorded reserves were often lacking in sufficient details to evaluate the propriety of the amounts. In a related study, Laibstain and Huff examined reports of 600 companies for the years 1967 through 1969 and found relatively few cases of loss estimates that were subsequently corrected. However, of the ones that they did find, 79 percent involved credit corrections which supported their contention that when errors are made in loss estimates, there is a tendency to overestimate.

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8 Arlene Hershman, "Accounting: New Numbers, Same Game," Dunn's Review, August, 1972, p. 84.


In another study, Moore attempted to empirically test the relationship between changes in top management and discretionary accounting decisions which reduced income.\textsuperscript{11} The Wall Street Journal was scanned for a four-year period, 1966 through 1969, in order to identify changes in top management. A top management change was defined as a replacement of either the president, chief executive officer, or chairman of the board with new individuals or if management described itself as "new management." Requests were made for 265 annual reports of companies suspected of management changes and 165 reports were received. Of these, 36 reports were definitely identified as management change reports. Twenty-three of the 36 reports contained discretionary accounting decisions which reduced income. The sample was compared to the number of income reducing decisions appearing in two other independent samples: (1) a random sample of 100 reports with personnel changes that did not qualify as a change in top management, and (2) a random sample of 100 reports with no known changes in top management. Employing the chi-square statistical test of independence, both tests revealed a significant difference at the .001 level in the number of income reducing decisions recognized between the

management change firms and the firms in the two independent samples. On the basis of this evidence, Moore concluded that income reducing decisions are more likely to be made in a period when there has been a change in top management. He cautions, however, that no cause and effect relationship should be inferred and that it is possible that management changes and income reducing discretionary decisions are both the result of some third factor such as a decline in the level of a company's income.  

Reduced Level of Income

In references to the financial bath, it is often suggested that large material charges to income are more likely to occur when results before these losses are down from previous years. In other words, if results of operations are adverse anyway, why not even make it worse by revealing all the bad news at once?

For example, in 1972 Gulf Oil Company announced a 16 percent decline in operating income from the previous year and the recognition of a $250 million special charge which gave a final net decrease in income from the previous year of slightly over 60 percent. In early 1973, but before the 1972 results were published, Gulf announced that it was revising 1972 results to include a $25 million charge as a result of the February, 1973, dollar devaluation. After

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inclusion of this charge, 1972's level of income was nearly 65 percent lower than the previous year.\textsuperscript{13} Although this is only one instance, it is illustrative of numerous similar examples cited in a variety of financial publications.\textsuperscript{14} The major contention is the seemingly common tendency for management to recognize all bad news at one time. In addition, management appears to have a preference for recognizing the unfavorable news in a year in which "... earnings are expected to be lackluster, anyhow, giving the profit and loss statement 'one big bath' and, it's hoped, a limited impact on the price of the company's stock."\textsuperscript{15} In other words, management finds itself in a difficult situation, that is, having to report bad news in the form of lower earnings. A negative reaction from investors is to be anticipated but the reaction may change by diminishing marginal amounts as the amount of bad news increases. Whether or not this happens


in fact is not the issue at this point, but if management believes this to be true, then this could explain a relationship between a lower level of earnings and bath behavior.

**Presence of Extraordinary Gains**

Companies whose earnings vacillate from period to period are looked upon as possessing a greater degree of risk than a company whose earnings exhibit less dispersion. A smooth steadily increasing earnings trend is preferred. A large gain recognized in one period may push net income to a level which may be difficult to duplicate in subsequent years.

In his empirical study of extraordinary gains and losses, Bernstein observed a tendency for companies to offset material gains and losses. Discussing this practice in a later article, he noted that what makes the concurrent appearance of some gains and losses suspect is when the charge is the result of a provision for future costs and losses and the amount is approximately the same as the recognized gain. The inference is whether the charge to income would have been made at all without the offsetting benefit of the gain.

The joint appearance of material gains and losses may be nothing more than the accurate reporting of specific

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17 Bernstein, "Reserve for . . .," p. 46.
events that simultaneously occurred. On the other hand, the presence of a large gain in a period might also be viewed by management as an opportune time to release news of unfavorable events that have gone unrecognized. A large gain could serve to partially reduce or offset the negative reaction that might result from the recognition of a material loss.

**Decline in Market Value of Company's Stock**

Another existing condition which might be perceived as a convenient time to recognize a material charge to income is when the per share price of the company's stock is selling materially below what it was in previous periods. As a matter of fact, it has been suggested that the "bath" be used as a tactic to take advantage of a bear market. Ponder this advice:

Consider writing off those bad results you have been hiding for years. After all, if your stock is down 50 per cent already, how much worse can it get?18

If a company's stock is selling at depressed levels as a result of factors within that company or even because of general economic conditions, the release of bad news is not expected to elicit a proportionate reaction. This attitude also finds its rationale in the belief that increasing

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amounts of bad news is subject to a decreasing marginal reaction. Therefore, if a company has unfavorable news, and management can exercise discretion when the financial effects can be recognized, an adverse reaction can be somewhat mitigated by postponing recognition until a period when investors' expectations are at a low level.

Thus far, a review of the financial literature indicated frequent references to an alleged financial reporting strategy employed by management to minimize investor reaction to unfavorable news. This activity is commonly referred to as "taking a financial bath" and involves the current recognition of a material loss which does not appear to be the result of activities that have taken place in the current period. Central to a successful implementation are the requirements that:

1. Management reporting activities give the appearance of falling within the broad limits permissible under generally accepted accounting principles.

2. Management is able to time the recognition of losses in a period when the "right" conditions are present.

The references cited thus far, which imply that certain conditions be present in order to maximize the benefit of employing a bath, have some limitations. With the possible exception of the Moore study, most conclusions were reached as a result of a limited number of observations and reflect a perceived relationship by the authors without any substantial organized research effort to support the relationships
empirically. The following section describes two empirical studies which support the contention that financial baths do occur and that there are conditions under which management is more likely to implement a financial bath than others.

RELATED EMPIRICAL RESEARCH

There appears to be a paucity of research concerning the financial bath phenomenon, yet there is ample reference to it in describing certain firm behavior. An empirical study by Copeland and Moore and another by Charles Merz are the only two that this writer is aware of that specifically address this topic. Both studies conclude that firms do take financial baths; that it is an increasing phenomenon; and there are certain conditions under which a firm is more likely to take a financial bath. This section examines these studies in detail.

Copeland and Moore Study

The authors set out to determine the frequency with which the bath phenomenon occurs and to examine the economic conditions that exist when a bath is implemented.\(^{19}\)

The annual reports of 1,000 randomly selected companies from those listed on the Compustat Tapes was

requested for the five-year period 1966 through 1970. A total of 3,761 reports were received from 907 companies. Each of these reports were examined in order to identify those companies exhibiting bath behavior. Bath behavior was operationally defined as the recognition of:

... certain discretionary accounting decisions that reduce income before these decisions by 10 percent or more. A discretionary accounting decision is made by management whenever it determines the existence of changed conditions which justifies a nonexchange adjustment.20

There were 195 reports identified as companies suspected of taking a financial bath. The frequency of bath to total reports each year is indicated in Table 2.

Table 2

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>7.58</td>
</tr>
<tr>
<td>1969</td>
<td>6.08</td>
</tr>
<tr>
<td>1968</td>
<td>4.14</td>
</tr>
<tr>
<td>1967</td>
<td>4.35</td>
</tr>
<tr>
<td>1966</td>
<td>3.12</td>
</tr>
</tbody>
</table>

20 Copeland and Moore, pp. 64-65.
The authors concluded that, based upon the observed frequencies, bath behavior did not appear to be a widespread activity but that it was increasing and could be developing into a serious reporting problem.

The next phase of their research concerned testing the relationships between income movements, stock price movements and discretionary accounting decisions. They compared the group of companies that were suspected of taking a financial bath with a random sample of 100 companies that did not exhibit bath behavior. The following tests were made for both bath companies and non-bath companies to determine:

1. If current income before discretionary accounting decisions relative to prior year's income was significantly different for the two samples.

2. If the proportion of companies incurring losses before the discretionary accounting decision was significantly different for the two samples.

3. If the current year-end market price per share of stock relative to the prior year-end price per share was significantly different for the two samples.

In the first test of income movements, the Mann-Whitney U test was employed and a significant difference was found in four of the five years tested. With the exception of 1966, companies which recognized income reducing accounting decisions had significantly greater declines in income before these decisions than a random sample of non-bath companies.
In the second test, the chi-square test was employed in each of the five years. It was found that in each of the years tested the bath companies had a significantly greater proportion of losses before the discretionary accounting decision than did non-bath companies. The authors concluded that this tended to support the contention that the sample companies were taking a bath, and that a period of adverse results appeared to be a condition which was conducive to its implementation.

In the final test using the Mann-Whitney test, they found a significant difference in stock price movements between bath and non-bath companies in three of the five years tested. However, the authors noted a high correlation between stock price movements and income movements in the bath companies; consequently, the significant difference achieved could possibly have been attributed to income movements.\textsuperscript{21}

To summarize, Copeland and Moore found that the frequency with which bath behavior was observed ranged between approximately 3 percent and 8 percent over the five-year test period; that it was an increasing phenomenon and that there was a significant statistical relationship between companies which recognize material discretionary

\textsuperscript{21} Copeland and Moore, p. 67.
charges and declines in income before the discretionary charge.

Charles Merz Study

In another empirical study, Merz also attempted to establish the frequency with which companies employ the financial bath and to test how discretionary losses were related to a variety of business factors existing within the firm.\textsuperscript{22} A sample of 50 companies taken from Fortune's 500 Industrial Companies for each of the six years from 1967 through 1972 was used to establish the frequency with which companies recognize "unrealized losses."\textsuperscript{23} Table 3 illustrates the percentage of companies in each sample of 50 companies that exhibited bath behavior. Merz concluded that the number of companies recognizing unrealized losses reflected an increasing trend and that this constituted a serious reporting problem.

\textsuperscript{22}Charles M. Merz, "Extraordinary Losses Which Have Not Been Realized: Frequency of Occurrence Related to Other Business Factors" (unpublished Ph.D. dissertation, University of Southern California, 1974).

\textsuperscript{23}The references to discretionary accounting decisions that reduce income, unrealized losses, and discretionary losses as used in the Copeland and Moore study, Merz study, and this study respectively; all generally refer to the same type of situation. That is, a loss in economic resources which have not been evidenced by an exchange transaction with an outside party and whose recognition depends upon a managerial decision that a loss has been incurred.
Table 3
Percentage of Companies With Unrealized Losses (Merz)

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>16.0</td>
</tr>
<tr>
<td>1971</td>
<td>18.0</td>
</tr>
<tr>
<td>1970</td>
<td>16.0</td>
</tr>
<tr>
<td>1969</td>
<td>10.0</td>
</tr>
<tr>
<td>1968</td>
<td>6.0</td>
</tr>
<tr>
<td>1967</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Merz then tested for a relationship between the incidence of an unrealized loss and the following six conditions which may exist within the firms:

1. A reversal in the trend of annual income before extraordinary items.

2. The occurrence of an extraordinary gain which "offsets" at least one-half of the unrealized loss.

3. The presence of intangible assets in the corporation's balance sheet.

4. The number of acquisitions made by the corporation in its two preceding fiscal years.

5. A replacement of the chief executive officer during the year in which the unrealized loss was recognized.
6. A change in the public accounting firm which audits the corporation's financial statements.\textsuperscript{24}

Using multivariate chi-square analysis, he found statistically significant relationships between discretionary losses and two of the six variables tested: (1) the trend in earnings, and (2) offsetting extraordinary gains. On the basis of his investigation, Merz concluded that firms tend to use loss recognition as a means of manipulating net income in the following manner:

If income from operations had declined, corporations tended to take the "financial bath" in the form of an unrealized loss. If an offsetting extraordinary gain had occurred during the year, corporations tended to smooth their trend of net income by recognizing an unrealized loss.\textsuperscript{25}

**SIGNIFICANCE OF PRIOR STUDIES TO THIS RESEARCH**

The numerous references to the financial bath in the financial literature give the impression that, in many instances, management is engaged in a form of income manipulation. Admittedly, most references are based upon casual observations of a limited number of cases, but the frequency with which the activity is observed and the magnitude of the amounts involved should concern all who have an interest in the reporting activities of business firms.

\textsuperscript{24}Merz, p. 62. \textsuperscript{25}Merz, p. 119.
The empirical studies by Copeland and Moore and by Charles Merz tend to support the allegations of financial bath activity by providing evidence that firms do take financial baths; that it appears to be an increasing phenomenon and that there is a statistical relationship between the existence of certain conditions and the incidence of bath activity. Specifically, it was found that if a firm experienced a decline in operating income relative to prior year's income, or if a firm experienced an extraordinary gain in the current period, it was more likely to make a discretionary accounting decision to recognize a loss.

Neither study, however, tested the important aspect of a reaction by investors to the recognition of a material discretionary loss. The Securities and Exchange Commission (SEC) in Accounting Series Release No. 138 expressed its concern over the increasing number of companies recognizing large charges to income and indicated that these charges often came without warning and surprised many investors. With the release of news that a material charge to income is to take place, one would expect a market impact on the security price of firms making these discretionary accounting decisions. The financial bath reporting strategy

discussed previously suggests such a reaction, but it also implies that this impact can be influenced by timing the release of the news in a period when certain conditions are present. In other words, management is faced with reporting a loss of economic resources to investors who have an interest in those resources; consequently, it is not unlikely that management would make an effort to release the news in a period they perceive would cause the least negative response. The fact that a statistical relationship has been found between bath type behavior and the existence of certain conditions strongly suggests that management perceives these conditions as being conducive in minimizing investor reaction. If this can be empirically verified, then perhaps the increasing number of firms recognizing material charges can be explained by the fact that more and more managements have come to recognize this as a successful reporting strategy. In other words, it enables them to make the best of a bad situation and it is in their self-interest to implement it when the conditions are "right."

Whether or not investors do react to the release of unfavorable news and if a reaction is different when certain conditions are present is subject to empirical verification and is the point of investigation in this study. The other studies dealing with the financial bath phenomenon have established that a relationship exists between the
recognition of a discretionary loss and the presence of certain conditions. This study extends the research in this area by addressing the following questions: Is the financial bath reporting strategy valid? In other words, are investors surprised by the reporting of a bath-type charge and what is their reaction? Can management influence a reaction by timing the recognition of these charges in a period when certain conditions are present? Therefore, a major objective of this study is to empirically test whether there is a market reaction to the announcement of a discretionary loss and whether or not a reaction can be modified by timing the recognition in a period when certain conditions are present. The hypotheses tested in this study are developed in Chapter 4 along with an explanation of the research methodology employed.
Chapter 4

THE INVESTIGATION

The empirical phase of this study has three principal thrusts:

(1) To test whether the announcement of a discretionary loss has informational content for investors.

(2) To test whether investors view the announcement of a discretionary loss as unfavorable news.

(3) To determine the validity of the financial bath reporting strategy by testing whether investor reaction to the announcement of a discretionary loss is different when certain conditions are present.

Much of the criticisms directed toward firms suspected of employing the financial bath reveal a concern that investors are being misled by this practice. If this is true, then the announcement that a discretionary loss will be recognized should cause investors to assess the significance of this information and to react in a manner which reflects their expectations for the firm. The research methodology employed in this study measures the magnitude and direction of any investor reaction at the time knowledge of the discretionary loss becomes public.
EFFICIENT MARKETS AND INVESTOR REACTION TO NEW INFORMATION

There is a substantial body of research which indicates that the market is efficient and will react quickly and in an unbiased manner to all publicly available information.¹ This reaction takes the form of changes in the equilibrium price of a security as a result of a change in the market's assessment of future returns for that security. If a particular news item about a security has informational content, a change in the equilibrium price of that security can be observed at or around the time the news item becomes publicly known.

A number of empirical studies have shown that the market is efficient in processing new information and that changes in the equilibrium price of a security occurs rapidly after the announcement of the information. Fama, et al., tested the market's reaction to the announcement of stock splits and found that "the information implications of a split are fully reflected in the price of a share at least by the end of the split month but most probably almost immediately after the announcement date."²


In another empirical study, Beaver tested the informational content of annual earnings announcements. Using a sample of 143 firms listed on the Compustat Tapes for the years 1961 through 1965, he hypothesized that if the annual earnings announcement provided new information to investors, this would be reflected in:

1. a greater variability in price changes when earnings are announced than at other times during the year.
2. a greater number of shares being traded when the earnings are announced than at other times during the year.

Beaver observed both volume and price changes for a 17-week period surrounding 506 earnings announcements. His data indicate a mean increase of approximately 30 percent in the number of shares traded in the week earnings were announced than the mean volume traded in all other weeks (excluding the 17-week test period). Similarly, he found the price activity in the week of earnings announcement to be four times larger than the mean price activity during the other weeks. On the basis of this evidence, Beaver concluded that the individual investor and the market as a whole perceive informational content in annual earnings announcements and that this perception occurs rapidly after the earnings information is made public. A similar

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conclusion was reached by Robert May in an empirical study using quarterly earnings announcements. The above studies tested the speed with which new information is impounded in the market price of securities and are consistent with the semi-strong form of the efficient markets theory. A number of other studies have been made utilizing changes in security prices to measure reaction to accounting changes and the desirability of alternative methods of accounting.

Efficient markets theory appears to provide a particularly suitable framework for assessing the effects of accounting procedures or regulations. Of course,

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5 Tests of the efficient markets hypothesis are described as weak, semi-strong, and strong form depending upon how information is defined. Weak form tests concern historical prices, semi-strong tests concern all publicly available information, and strong form tests concern all information. For a concise description, see Baruch Lev, "Efficient Capital Markets," Financial Statement Analysis: A New Approach (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1974), Chap. 14, pp. 218-20.


empirical evidence of effects would seem to be a pre-requisite in evaluating the allegations of effects attributed to certain accounting and reporting practices. A major function of this study is to provide evidence of the effects of a financial bath. This evidence is used to either substantiate or refute the alleged effects attributed to financial bath activity.

RESEARCH DESIGN

If investors are surprised by the large charges to income made by companies suspected of employing the financial bath as the SEC and other critics maintain, their reaction can be measured by observing the security price adjustments that take place in and around the time the charge becomes public knowledge. Security price adjustments can also be observed to test whether investor reaction is different when certain conditions are present. Specifically, the financial bath reporting strategy suggests that losses be recognized in a period when one or more of the following conditions exist:

(1) There has been a change in the top management of the firm.

(2) Current earnings are at a lower level relative to previous periods.

(3) The company's current market price per share of common stock is down from previous periods.

(4) An extraordinary gain is present to partially or fully offset the charge.

In the case of a top management change, Moore found a significant relationship between discretionary losses and changes in top management. Even though a period of management change appears to be conducive to financial bath activity, its implementation is limited to once per new management. Therefore, it is a condition which does not lend itself to a systematic means of manipulating reported income by an incumbent management; consequently, it will not be a test condition in this study. However, instances of top management changes in the sample companies used in this study will be noted and reported.

Copeland and Moore and Charles Merz both found a significant relationship between current earnings decline relative to prior years' earnings and the recognition of discretionary losses. This strongly suggests that a period of adverse results is viewed by management as a

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condition which is conducive to financial bath activity. Allegedly, the market reaction to a large charge when earnings are already down will be less adverse than if the large charge was recognized when current earnings are greater than in prior years. A similar rationale holds that a lesser negative reaction will occur if the charge is recognized in a period when the company's common stock current market price is lower than in prior years than it would if the charge were recognized in a period when the stock was selling at a higher price than in previous years.

Finally, an adverse reaction to a material charge can be minimized if recognized in a period when an extraordinary gain exists rather than if the charge were recognized in a period where there is no extraordinary gain to offset it. To summarize, the test conditions used in this study involve income movements, stock price movements and the presence or absence of extraordinary gains.

Sample Plan

The firms chosen for this study were taken from the Fortune 500 Industrial Companies for 1973. This group of companies was selected for several reasons. First, they represent some of the largest and most successful companies in the country. As a consequence, their activities are closely monitored by all sectors of the economy, including being independently audited, for the most part, by the big national public accounting firms. Accounting and reporting
practices employed by these firms would tend to mirror contemporary practice and would be quite influential in establishing the acceptability of any new accounting or reporting presentations. A second reason for choosing the Fortune 500 companies is because their securities are, for the most part, well-known, widely held, and actively traded. Financial data regarding their activities are generally obtainable.

Initially, the annual reports for each of the 500 companies was examined in order to identify those companies which are suspected of taking a financial bath and are henceforth referred to as the "bath companies."

Definition of Terms

The financial bath is implemented by recognition of material charges to income in the income statement. The material charges of interest in this study are those events that have the accounting designation "loss." The term "loss" in accounting is variously described as: ordinary, extraordinary, catastrophic, discretionary, realized, unrealized, expected, unexpected, gross, net, and a variety of other qualifying terms. In order to limit the scope of this study, attention is directed only to those losses which are the result of a discretionary decision by management. In the judgment of this writer, this type of loss would be most susceptible to the timing requirements in the implementation of a financial bath.
Ideally, a loss should be recognized whenever service factors have diminished. Some losses are clearly related to identifiable events which have caused the diminution of service factors. Others are not so clearly related and are the result of a judgment by management that an expiration of service has taken place. It is the latter type which are referred to as discretionary losses in this study. For example, if uninsured plant and equipment items are destroyed by fire, the event and diminution of service factors are readily apparent. On the other hand, if plant and equipment items are still physically present but are written-off or written-down because of a diminution of expected benefits, the loss and the events which caused it are not as readily apparent. The recognition of the loss and its amount is not dependent upon some readily identifiable event or exchange transaction but rather on a management decision that a loss of service factors has taken place. Management can exercise discretion when it might choose to make this decision.

It is necessary to establish criteria for identifying bath companies. It is unlikely that direct correspondence with companies asking if they are taking a financial bath would produce reliable results. Consequently, a company suspected of taking a financial bath is operationally defined in this study as a company that reports a material loss which is the result of a discretionary
management decision. This would include write-offs, write-downs, and provisions for future costs which have not been evidenced by an exchange transaction at the balance sheet date. A material loss is defined as one which reduces income before the charge by 10 percent or more.

After the bath companies were identified, the sample was classified into various groups which exhibit the conditions that are of interest in the testing of the statistical hypotheses of this study. The initial classification of the bath companies was designed to test for the current year's income relative to prior year's income condition. Group I consists of bath companies whose net income in the prior year was equal to or greater than current year's income before discretionary losses. Group II consists of bath companies whose net income in the prior year was less than current year's income before the discretionary loss.

The next classification tests for the current market price per share relative to the prior year's market price condition. Group III consists of bath companies whose average market price per share of common stock for the prior year is equal to or greater than the average market price per share of common stock in the current year. Group IV consists of bath companies whose average market price per share of common stock for the prior year was less
than the average market price per share of common stock in the current year. Average price per share of common stock is defined as:

\[ \bar{P} = \frac{1}{N} \sum_{m=1}^{N} P_m \]

Where:
\( \bar{P} = \) average price per share of common stock
\( P_m = \) the closing price per share of common stock on the last day of the month
\( m = \) month identification; January = 1, February = 2, . . . , December = 12
\( N = \) number of months in year

Finally, both companies were reclassified to test for the presence of an extraordinary gain in the current period relative to its absence condition. Group V consists of both companies which also recognize an extraordinary gain in the current period. Group VI consists of both companies which have not recognized an extraordinary gain.

The Experimental Variables

Security price adjustments for an eight-week period were observed in order to assess the market reaction to the announcement of the recognition of a material discretionary loss. The week of announcement was designated as week 0. The test period encompasses the three-week period prior to the week of announcement (-3, -2, -1), and the week of
announced, plus the subsequent four weeks (0, +1, +2, +3, +4).

A weekly logarithmic price relative was used to measure the market reaction. This measure has been employed in a number of other studies and can be viewed as a security's weekly rate of return with continuous compounding. It is defined as follows:

\[
PR_{it} = \ln \left[ \frac{D_{it} + P_{it}}{P'_{it-1}} \right]
\]

Where:

- \(PR_{it}\) = the natural logarithm of the price relative of the \(i\)th firm's common stock at time \(t\)
- \(D_{it}\) = the cash dividend per share of firm \(i\) in the week \(t\) that the security went ex-dividend
- \(P_{it}\) = the closing price for a share of firm \(i\) at the end of week \(t\)
- \(P'_{it-1}\) = the closing price for a share of firm \(i\) at the end of week \(t-1\) adjusted for capital changes

---

There are a number of factors which may affect the weekly rate of return of an individual security. Not the least of them would be the general economic conditions existing at any one time. In addition, there may be certain industry-wide factors which have a particular effect on companies within that industry. Finally there are specific factors which are unique to an individual firm.11

Since this study is concerned with the portion of the weekly price relative which is the result of the announcement of the discretionary loss, it was necessary to remove the portion of the total weekly price relative that is related to economy-wide and industry-wide factors.

This study uses a model which has been used extensively in recent empirical studies to remove the economy-wide effects from the individual firm's price relative.12 The model was first proposed by Markowitz and later simplified by Sharpe.13 The model consists of a least squares regression as follows:

---


12 See Footnote 10.

\[ PR_{it} = a_i + b_i PR_{mt} + e_{it} \]

Where:

- \( PR_{it} \) = the logarithmic price relative of the i th firm's common stock at week t
- \( a_i \) and \( b_i \) = estimates of parameters that relate changes in i th firm's common stock price with changes in general market movements
- \( PR_{mt} \) = a general index of market performance expressed as a logarithmic relative (Standard and Poor's Industrial Price Index)
- \( e_{it} \) = the logarithmic price relative residual or disturbance term

Data Collection

The first step involved examining the annual report for each of the 500 companies listed in the May, 1974, issue of Fortune magazine. Each report was perused, especially the President's letter, the income statement, balance sheet and footnotes, in order to detect a material discretionary loss which reduced income by at least 10 percent before recognition of the discretionary loss. The reporting period of interest was from October 1, 1972, through September 30, 1973. Sixty companies were found

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14 Annual reports are on file in the main libraries of Southern Illinois University at Carbondale, Illinois, and the University of Illinois, Urbana, Illinois.

15 Fiscal years ending September 30, 1973 were chosen as the cutoff date because the provisions of APB Opinion No. 30 were not effective until after that date;
which met this criteria and are the sample companies used in this study (Appendix A). For each identified company, certain financial and non-financial data were accumulated for later use in performing statistical tests and in profiling descriptive characteristics of the firms. An example of the type of data gathered for each firm is illustrated in Appendix B.

In order to assess the market's reaction to the firm's announcement of a material discretionary loss, it is essential to establish the precise week when this information was made public. It was anticipated that when a discretionary loss is to be recognized, this decision is usually postponed to year-end when the impact on total results is fairly well known by management. The Wall Street Journal Index was consulted for any corporate news item concerning the discretionary loss. If a news item was reported, the appropriate edition of The Wall Street Journal was examined to verify the exact date when news of the discretionary loss was initially announced. If no separate news item concerning the discretionary loss was listed in the Index, each item listed that could remotely most charges of interest in this study could be found under the extraordinary classification on the income statement.

be concerned with earnings figures was traced to the appropriate edition of the *Journal* to determine the week in which the discretionary loss was first publicly disclosed. If the loss was not disclosed either as a separate news item or as part of reported earnings, the date of public distribution of the annual report disclosing the loss was used as the announcement week.

The next step involved obtaining weekly closing common stock prices for each of the sample companies for a period extending thirty-four weeks in total: twenty-nine weeks prior to the announcement week, the week of announcement and four subsequent weeks. Weekly closing values for Standard and Poor's Industrial Price Index were also obtained for the necessary weeks. All data concerning individual security prices were available in *The Daily Stock Price Record* published quarterly by Standard and Poor's Corporation. Dividend information was obtained from *Moody's Cumulative Dividends Record*.

**Methodology**

Attention was focused on the error term $e_{it}$ to assess the impact of the announcement of the discretionary charge. Since $a_i + b_iPR_{mt}$ represents the expected price relative of firm $i$ based upon general market factors, the

error term \( e_{it} \) represents the unexpected price relative of firm \( i \) which is not attributable to general economic conditions. The estimates of the parameters \( a_i \) and \( b_i \) are determined by least squares regression by regressing the weekly logarithmic price relatives for each firm on the weekly logarithmic price relative of the market index for a period of twenty-six weeks prior to the test period. The estimated parameters for each firm in the sample are used to predict firm price relatives for the test period which encompasses the announcement week, three weeks prior and four weeks subsequent (weeks \(-3, -2, \ldots, +3, +4\) inclusive). The error term is developed by applying the regression equation using the ex post weekly market price relative to estimate the weekly price relative of firm \( i \) in the test period. The estimated price relative of firm \( i \) is then subtracted from its actual ex post price relative in the weeks of the test periods.

Symbolically, the error term is computed as follows:

\[
e_{it} = PR_{it} - a_i - b_i PR_{mt}
\]

Any industry-wide effects would still be present in the firm weekly price relative; however, this factor should be minor considering that the sample firms are, for the most part, large well-diversified companies. In addition, cross-sectional averaging of the weekly error terms of the sample firms minimized industry effects. The analysis
focuses on the average $e_{it}$ for the bath companies, thereby
abstracting the general trend from individual firm fluc-
tuations. The computation is as follows:

$$
\bar{e}_t = \frac{1}{n} \sum_{i=1}^{n} (1 + e_{it})
$$

Where:

- $\bar{e}_t$ = average error for week $t$
- $e_{it}$ = the error from the regression for
  firm $i$ in week $t$
- $t$ = weeks in test period (-3, -2, -1, 0, +1, +2, +3, +4)
- $n$ = number of firms

Schematically, the weeks involved are depicted in Figure 2.

<table>
<thead>
<tr>
<th>Non-Test Period</th>
<th>Test Period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>-29 -28 -27.....-5 -4</td>
<td>-3 -2 -1 0 +1 +2 +3 +4</td>
</tr>
</tbody>
</table>

Weeks from announcement

Least Squares Regression to Develop Estimates of $a_i$ and $b_i$

$$
PR_{it} = a_i + b_i PR_{mt}
$$

Regression Equation Employed to Obtain $e_{it}$

$$
e_{it} = PR_{it} - a_i - b_i PR_{mt}
$$

Figure 2

Research Time Periods
If investors are surprised by the public announcement of a material discretionary loss, we would expect a greater price adjustment in week 0 than in the weeks prior to the test period. At this point, the magnitude and not the direction of the price adjustment is of immediate interest. A transformation of $e_{it}$ which abstracts from its sign is used to focus on the perceived informational content of the loss announcement. The transformation is the square of the error term ($e_{it}^2$) and the magnitude of the price adjustment is expressed in the form of a price change ratio defined as follows:

$$\bar{E}_t = \frac{1}{n} \sum_{i=1}^{n} \frac{e_{it}^2}{s_i^2}$$

Where:

- $\bar{E}_t$ = the average price change ratio in period $t$ (t = -3, -2, -1, 0, +1, +2, +3, +4)
- $e_{it}^2$ = the square of the error from the regression for firm $i$ in week $t$
- $s_i^2$ = the average $e_{it}^2$ for firm $i$ in the non-test period
- $n$ = number of firms

The average price change ratio, $\bar{E}_t$, has an expected value of 1.0 and will be observed for each week in the test period. See Beaver, "The Informational Content . . . .", p. 79.
period for above normal or below normal price changes. An $E_t$ greater than 1.0 indicates an above normal price change in week $t$ whereas an $E_t$ less than one indicates a below normal price change in week $t$.

**HYPOTHESES TO BE TESTED**

If investors are surprised by the announced discretionary loss and perceive this news as having informational content, we would expect a change in equilibrium prices to be reflected in an above normal price change in week 0. The price change ratio was also observed for three weeks prior to week 0 in order to detect any news leakage and hence a market reaction before the discretionary loss is publicly announced. Likewise, four weeks subsequent to week 0 was observed to detect any lag in market reaction in interpreting the discretionary loss announcement.

The mean error term ($\bar{e}_t$) for all 60 companies in the sample was observed in the week of loss announcement in order to measure the direction of investors' reaction. The expectation was that, on the average, investors will react unfavorably in terms of price adjustments in the week the discretionary loss is announced. An $\bar{e}_t$ less than 1.0 would indicate a negative investor response.

If investor reaction to a discretionary loss can be influenced by timing recognition in a period when certain conditions exist, we would expect a significant difference
between the $e_t$ of firms where the condition is present and the $e_t$ of firms where the condition does not exist. The test conditions are the level of earnings and security prices relative to prior years and the presence or absence of extraordinary gains. The following would be expected in the eight-week test period:

1. The $e_t$ of bath companies whose current income before discretionary losses is less than the net income of the prior year would be significantly different from the $e_t$ of bath companies whose current income before discretionary losses is not less than the prior year.

2. The $e_t$ of bath companies whose current average market price per share of common stock is less than the average market price per share of the prior year would be significantly different from the $e_t$ of bath companies whose average current market price per share of common stock is not less than the average market price per share of the prior year.

3. The $e_t$ of bath companies who recognize an extraordinary gain would be significantly different from the $e_t$ of bath companies who do not recognize an extraordinary gain.

In order to evaluate the results, the dual classification analysis of variance of the following form was utilized:

$$E_{ijk} = u + \delta_j + \beta_k + I_{jk} + e_{ijk}$$

Where:

$E_{ijk}$ = the average value of the logarithmic price relative for the $i^{th}$ firm common stock in cell $jk$,

$u$ = the grand mean

$\delta_j$ = the effect associated with the particular treatment population $j$,

$\beta_k$ = the effect associated with the particular treatment population $k$,
I_{jk} = \text{the interaction effect created by the combination of treatments } j \text{ and } k,

e_{ijk} = \text{the random error term}

j = \text{a treatment population where treatment is defined as the presence or absence of test conditions classified as Group I through Group VI (} j = 1, 2, \ldots, 6\text{)}

k = \text{a treatment population where treatment is defined as the weekly time period; } k = -3, -2, -1, 0, +1, +2, +3, +4.19

To summarize, three null hypotheses were tested in the eight-week test period. The null hypotheses are stated as follows:

1. Of those companies recognizing a discretionary loss (bath companies), there is no significant difference between the $\bar{e}_t$ of companies whose income before the discretionary loss is less than the prior year's net income, and the $\bar{e}_t$ of companies whose income before the discretionary loss is not less than the prior year's net income.

2. Of those companies recognizing a discretionary loss (bath companies), there is no significant difference between the $\bar{e}_t$ of companies whose average market price per share of common stock is less than the prior year's average market price per share, and the $\bar{e}_t$ of companies whose average market price per share of common stock is not less than the average market price per share in the prior year.

3. Of those companies recognizing a discretionary loss (bath companies), there is no significant difference between the $\bar{e}_t$ of companies who recognize an extraordinary gain and the $\bar{e}_t$ of companies who do not recognize an extraordinary gain.

The financial bath reporting strategy suggests that there will be an investor reaction to the announcement of a discretionary loss but that this response can be influenced.

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by postponing recognition until a period when certain conditions are present. In order for this experiment to fully support these contentions, the following result must occur:

Each of the three null hypotheses should be rejected for the eight-week test period.

Chapter 5 presents the results of the experiment described in this chapter.
Chapter 5

RESULTS OF THE INVESTIGATION

The objective of this chapter is to report the results of the investigation described in the previous chapter. First, the question of the magnitude of investor reaction to the announcement of a discretionary loss will be ascertained and analyzed. Second, a determination will be made whether the evidence of a reaction, if any, indicates an unfavorable response. Finally, investor reaction to discretionary losses when six different conditions are present will be tested for significance in determining the validity of a financial bath reporting strategy. In addition, a profile of the firms under study will be presented along with an interpretation of the results and their implications.

INVESTOR REACTION

The first research question addressed is whether or not investors are surprised by the public disclosure that a material discretionary loss is to be recognized. If investors are surprised by the announcement and if the news imparts information such that expectations of future
returns are altered, we would expect to observe significant price adjustments in the week of loss announcement (week 0). In order to assess the significance of the observed price response in week 0, the mean price response for a six-month period prior to the test period was used as the standard for comparison. A price change ratio $E_t$ was computed for each of the sample companies and cross-sectionally averaged for each week in the test period. The result was an average price change ratio ($\bar{E}_t$) with an expected value of 1.0. An $E_t$ greater than 1.0 indicates an above normal price change in week t. The following hypothesis was formulated:

Null hypothesis: The $\bar{E}_t$ of companies recognizing a material discretionary loss is equal to 1.0 in the week the loss is publicly announced (week 0).

Alternative hypothesis: The $E_t$ of companies recognizing a material discretionary loss is greater than 1.0 in the week the loss is publicly announced.

The "Z test" was employed to test the hypothesis. If the computed Z statistic is greater than the critical value of 1.645 at the .05 level of significance, the null hypothesis should be rejected.

$$Z = \frac{\bar{E}_t - 1.0}{\frac{s}{\sqrt{n}}}$$

Where:

$\bar{E}_t$ = the average price change ratio in period t (week 0)

$s$ = the sample standard deviation
\( n \) = the number of sample firms

The relevant statistics for all sample companies in the week of announcement (week 0) are: \( \bar{E}_t = 3.176; \ s = 5.995; \ n = 60 \). The computed \( Z \) value equaled 2.812 which is greater than the critical value 1.645 at the .05 level of significance. Actually, the \( Z \) value is significant at the .0025 level of significance. Consequently, the null hypothesis can be rejected and the alternative hypothesis that the mean price change ratio is significantly greater than 1.0 is accepted. This test supports the contention that investors are surprised by the announcement that a material discretionary loss is to be recognized.

Figure 3 graphically illustrates a profile of the mean price change ratios for the sample companies in the eight-week test period. This eight-week profile of investor response illustrates rather convincingly that the news that a discretionary loss is to be recognized is perceived as new information and has a significant influence on investors' expectations for future security returns. The pattern of responses indicates above-average price changes in all weeks in the test period relative to average price changes in the non-test period weeks. The mean price change ratio for each week is shown in Table 4.

A \( Z \) test of significance was also utilized in testing the significance of the mean price responses in each of the three weeks prior to the loss announcement week and in
$E(E_t) = 1.0$

$E_t = \frac{1}{n} \sum_{i=1}^{n} \frac{e_{it}^2}{s_i^2}$

Figure 3

Magnitude of Price Change Ratios
For All Companies
each of the four weeks following it. At the .05 level of
significance, no significant difference was found between
the mean price response in weeks -3, -2, +1, +2, and +4
and the mean price response for the non-test period weeks.
A significant difference was found, however, in the week
immediately prior (week -1) to the loss announcement week
and in the third week subsequent to it (week +3).

Table 4
Mean Price Change Ratio For All
Sample Companies in Weeks
of the Test Period

<table>
<thead>
<tr>
<th>Week</th>
<th>Mean Price Change Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3</td>
<td>1.457</td>
</tr>
<tr>
<td>-2</td>
<td>1.384</td>
</tr>
<tr>
<td>-1</td>
<td>1.665</td>
</tr>
<tr>
<td>0</td>
<td>3.176</td>
</tr>
<tr>
<td>+1</td>
<td>1.195</td>
</tr>
<tr>
<td>+2</td>
<td>1.794</td>
</tr>
<tr>
<td>+3</td>
<td>1.890</td>
</tr>
<tr>
<td>+4</td>
<td>1.699</td>
</tr>
</tbody>
</table>

The mean price response in the week of loss
announcement is greater than in any other week, approxi-
mately 68 percent greater than the next highest price
response (week +3). This tends to support the contention
of the efficient markets hypothesis that when new information becomes publicly available, the market response in terms of price adjustments is rapid. The above normal price response in week +3 is not particularly surprising and is likely the result of a reassessment and adjustment of the initial reaction in the loss announcement week. In many instances, the first public disclosure of management's intention to recognize a material discretionary loss is lacking in specific details. Quite often, the announcement only indicates that a decision to recognize a loss was reached, that it would be material (often an approximate figure was given) and that more information would be forthcoming. As additional information regarding the loss recognition becomes available, the market's initial response to the loss announcement is likely to undergo a modification. Hence, the above normal response observed in week +3 is likely to be a modification of the initial response in week 0.

The above normal price response in week -1 is a little more difficult to interpret. One possibility is that there was news leakage. That is, news of the impending loss recognition may have reached the market from sources other than the public disclosure made in The Wall Street Journal. Another possibility may reflect on the methodology used in this study to identify the week of loss announcement. The Wall Street Journal Index was
examined for each company to identify the date on which the first public disclosure was made of the loss announcement in the Journal. After the issue date was identified, the loss announcement week was defined as the week ending the subsequent Friday. For example, if the loss announcement first appeared in the Wednesday, June 10, issue of the Journal, the loss announcement week would be identified as the week ending Friday, June 12. In a number of instances, the date of initial announcement was reported in the Monday issue of the Journal; consequently, the week of loss announcement was identified as the week ending the subsequent Friday. As an example, if the loss announcement first appeared in the Monday, June 8, issue of the Journal, the week of announcement was identified as the week ending Friday, June 12. There is the possibility that management may have publicly disclosed the loss on the preceding Friday before the market closed, yet this news would not appear in The Wall Street Journal until the following Monday. In these instances, the loss announcement week would have been erroneously identified by one week.

Even though the mean price response in week -1 and week 0 are significantly greater than the mean price response in the weeks of the non-test period, the week of loss announcement shows by far the greater price response. In order to determine whether or not there was significant leakage of news in the weeks prior to the loss announcement
week, a test utilizing a one-way analysis of variance design was implemented. The mean price responses for weeks -3, -2, -1 and 0 are tested for significance. If there was significant leakage of news in the weeks prior to the loss announcement week, the a priori expectation is that there would be no difference between the mean price responses for the four sample weeks. The results of the test appear in Table 5 and indicate that the sample differences are statistically significant at the .05 level of significance. The mean price response in week 0 is significantly greater than the price response in each of the three prior weeks.

Table 5
Results of One-Way Analysis of Variance Test for News Leakage

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F Statistic</th>
<th>Probability of the F Statistic Occurring by Chance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Categories</td>
<td>3</td>
<td>42.91</td>
<td>3.2060</td>
<td>.0235</td>
</tr>
<tr>
<td>Within Categories</td>
<td>236</td>
<td>13.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>239</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
An additional Z test was performed to test the significance between the mean price responses in week -1 and week 0. The test confirmed that the price response in the week of loss announcement was significantly greater than the mean price response in week -1 at the .035 level of significance. On the basis of these tests it seems safe to conclude that there was no significant news leakage or erroneous identification of the loss announcement week.

Thus far, the experiment indicates that there is a significant investor reaction to the announcement of a discretionary loss. This conclusion is based upon a statistically significant above-average price response in the week of loss announcement relative to the mean price response in the non-announcement weeks for the 60 companies in the sample. As indicated in Chapter 4, the 60 sample companies were sub-classified into six groups on the basis of six different conditions existing within the firm. Table 6 summarizes these sub-classifications.

Although each of these firms recognized a material discretionary loss, the circumstances under which they were recognized could perhaps have a bearing on investor reaction. The next test measures the magnitude of the mean price response for each of the six sub-groups relative to the mean price response for the weeks in the non-test period. Figures 4, 5, and 6 show an eight-week profile of the mean price responses in the test period for Groups I and II,
Table 6

Grouping of Sample Companies on the Basis of the Presence or Absence of Test Conditions

<table>
<thead>
<tr>
<th>Test Condition</th>
<th>Group</th>
<th>Number of Companies in Each Group</th>
<th>Total Number of Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income Condition:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current year's income before discretionary losses is less than prior year's net income</td>
<td>I</td>
<td>14</td>
<td>60</td>
</tr>
<tr>
<td>Current year's income before discretionary losses is greater than or equal to prior year's net income</td>
<td>II</td>
<td>46</td>
<td></td>
</tr>
</tbody>
</table>

| Price Movement Condition: | | | |
| Current year's average price per share of common stock is less than prior year's average price per share | III | 36 | 60 |
| Current year's average price per share of common stock is greater than or equal to prior year's average price per share | IV | 24 | |

| Extraordinary Gain Condition: | | | |
| An extraordinary gain is recognized which partially or fully offsets the discretionary loss | V | 29 | 60 |
| No extraordinary gain is recognized | VI | 31 | |
Figure 4

Price Change Ratios For Group I and Group II Companies
Figure 5

Price Change Ratios For Group III and Group IV Companies
$E(E_t) = 1.0$

Figure 6

Price Change Ratios For Group V and Group VI Companies
III and IV, V and VI, respectively. The mean price change ratio \( \bar{E}_t \) was again used to evaluate the magnitude of investor response in the loss announcement week relative to the mean price response in the six-month non-test period. A price change ratio of 1.0 would indicate that investor response in the week of loss announcement was not particularly unusual, being no different than the average response experienced throughout the preceding six months. A price change ratio greater than 1.0 indicates an above average investor response and conversely for a price change ratio of less than 1.0. Figures 4, 5, and 6 indicate that regardless of the circumstances which may exist within the firms as characterized by the six conditions, there is an above average investor response for all six groups in the week of loss announcement. The question posited is whether these observed above-average responses are significantly greater than the mean price responses in the non-announcement weeks. Partitioning the original 60 sample companies into six groups resulted in a small number of companies in certain groups. Consequently, a test for significance requires the use of the \( t \) distribution. Table 7 illustrates the results of the test for each group at the conventional .05 level of significance.

In five out of the six groups, the mean price response in the week of loss announcement is statistically greater than the expected mean response of 1.0 at the
Table 7

Results of t Test Comparing the Mean Price Response in the Week of Loss Announcement with the Mean Price Response in the Weeks of the Non-test Period

<table>
<thead>
<tr>
<th>Group</th>
<th>Number of Companies</th>
<th>Mean Price Response</th>
<th>t Statistic</th>
<th>Approximate Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>14</td>
<td>3.620</td>
<td>1.405</td>
<td>.093</td>
</tr>
<tr>
<td>II</td>
<td>46</td>
<td>3.041</td>
<td>2.383</td>
<td>.009</td>
</tr>
<tr>
<td>III</td>
<td>36</td>
<td>3.660</td>
<td>2.115</td>
<td>.022</td>
</tr>
<tr>
<td>IV</td>
<td>24</td>
<td>2.450</td>
<td>2.868</td>
<td>.005</td>
</tr>
<tr>
<td>V</td>
<td>29</td>
<td>3.111</td>
<td>2.153</td>
<td>.021</td>
</tr>
<tr>
<td>VI</td>
<td>31</td>
<td>3.237</td>
<td>1.840</td>
<td>.040</td>
</tr>
</tbody>
</table>

conventional .05 level of significance. The lone exception is Group I companies which are identified as companies whose current income before discretionary losses is less than the net income of the prior year. These results indicate that the announcement of a discretionary loss by those companies in Group I did not elicit, on the average, any unusual investor reaction; that is to say that the reaction was not significantly different from the average price response experienced by the firms in the previous six months. This finding tends to give some support to the aspect of a financial bath reporting strategy which holds that if management can exercise
control over the timing of loss recognition, the loss should be recognized in a period in which results are adverse relative to prior periods.

It should be pointed out though that Group I contained only 14 observations which is the smallest number of companies of any of the groups. Of the 14 companies, 8 experienced an above average price response in the week of loss announcement. In particular, one company experienced an extraordinarily large price reaction—approximately five times greater than the next highest price ratio. If this one extreme observation is excluded from the sample, the resulting t statistic becomes 1.840 which is greater than the critical value of 1.782 at the .05 level of significance. Ironically, the initial lack of a significant difference in price response can be attributed to the extreme price response of one company which increased the variance of the sample to such an extent that the observed price response appeared not to be significantly different from 1.0.

Based upon the results of the experiment thus far, it can be concluded that the announcement that a material discretionary loss is to be recognized has informational content for investors. The importance of this new information is evidenced by a rapid investor response in terms of a significantly greater mean price response in the week the loss is first publicly disclosed compared to the mean price response experienced by the companies in the previous
six months of the non-test period. This conclusion was also found to be valid when the 60 companies were partitioned into six different groups on the basis of the presence of six different characteristics. For each group, there was a significantly greater price reaction in the week the discretionary loss was announced compared to the mean price response in the other weeks of the study.

DIRECTION OF INVESTOR REACTION

In the previous section, evidence was presented which indicated the announcement that a discretionary loss will be recognized has informational content and that investors react to this news rapidly. However, investor response was measured in terms of the magnitude of price changes that took place in the weeks of the test period relative to the weeks in the non-test period. No indication of the direction of the price change was given. This section tests whether the announcement of a discretionary loss is viewed, on the average, as unfavorable news by investors. A downward price adjustment in the week of loss announcement would indicate an unfavorable investor response.

In order to measure investors' reaction to the loss announcement, attention is focused on the measure \( \bar{e}_t \) described in Chapter 4. \( \bar{e}_t \) represents the mean error for week \( t \) as a result of cross-sectionally averaging the
weekly error term from the regression for each firm in the sample. The measure $\tilde{e}_t$ has an expected value of 1.0 while any value less than 1.0 would indicate an unfavorable investor response.\(^1\)

From a management perspective, the reporting of a discretionary loss would appear to be "bad news," that is, management is faced with reporting that resources under its stewardship have diminished without the benefit of creating an equivalent utility. The a priori expectation would appear to be a negative investor response in the week the discretionary loss is publicly disclosed.

By observing the measure $\tilde{e}_t$, for the week of loss announcement, the direction of investor reaction can be determined. Figure 7 graphically illustrates an eight-week profile of the direction of investor response. Week 0, the week of loss announcement, shows a value for $\tilde{e}_t$ of less than 1.0 indicating a negative or unfavorable investor response to the loss announcement. The research question posited is whether this observed unfavorable investor response is significantly different from the expected

\(^1\)The error term $e_{it}$ as developed from the linear regression model is assumed to have an expected value of zero and a constant variance. The eight weeks in the test period were excluded in developing the regression model in order not to violate the linear regression model's assumption of homoscedasticity of variance. But in order to avoid working with negative figures, one was added to each of the residuals in the test period, thereby giving $\tilde{e}_t$ an expected value of 1.0.
\[ E(\bar{e}_t) = 1.000 \]

\[ \bar{e}_t = \frac{1}{n} \sum_{i=1}^{n} (1 + e_{it}) \]

Weeks from Announcement

Figure 7

Mean Error Terms for All Companies
response of 1.0. The following hypothesis addresses this question:

Null hypothesis: The mean of the error terms \( \bar{e}_t \) in the week of loss announcement (week 0) is equal to 1.0.

Alternative hypothesis: The mean of the error terms \( \bar{e}_t \) for the week of loss announcement (week 0) is less than 1.0.

A one-tailed "Z test" was utilized to test if \( \bar{e}_t \) for week 0 was significantly different from 1.0. If the computed Z value is greater than the critical value of -1.645 at the .05 level of significance, the null hypothesis should be rejected. The mean error term for all companies in the sample for week 0 is .982 with a sample standard deviation of .083. The computed Z value was -1.683 which is greater than the critical value of -1.645. Consequently, the null hypothesis is rejected and the alternative hypothesis that \( \bar{e}_t \) is less than 1.0 is accepted. On the basis of this test, it can be concluded that the announcement of a discretionary loss elicits a statistically significant negative reaction by investors.

The pattern of investor response in Figure 7 is particularly interesting. In the three weeks prior to the loss announcement, there does not appear to be any material unexpected price changes taking place for the sample companies. This observation is consistent with the observation reported earlier that there did not appear to be any significant news leakage before the discretionary loss is
announced. For the three weeks following the loss announcement week, investors on the average are responding favorably to the sample companies. It seems reasonable to infer from this pattern of responses that upon the announcement of a discretionary loss that, on the average, there is an immediate downward price adjustment in the securities of the sample companies. After the initial downward price adjustment in week 0, subsequent investor reaction appears to reflect a new optimism as to the future prospects for the firms.

A Z test for significance was also applied to each of the other weeks in the eight-week profile. A summary of the results appears in Table 8. Of the eight-week test period, only week 0, the week of loss announcement, shows a significant price adjustment at the conventional .05 level of significance.

The 60 companies making up the sample were again partitioned into six groups on the basis of the test conditions described in Table 6. The mean error terms for each group in the week of loss announcement appears in Table 9.

In all the groups, the mean error term for week 0 is less than 1.0 indicating a negative investor response. Therefore, regardless of the presence or absence of the characteristics identified by the groups, the announcement of a material discretionary loss is viewed unfavorably by investors and results in an average downward price adjustment in the company's security prices.
Table 8

Results of Z Tests for Significance of the Mean Error Terms for Each Week in Test Period

<table>
<thead>
<tr>
<th>Week</th>
<th>Mean Error Term</th>
<th>Z Statistic</th>
<th>Approximate Level of Significance&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3</td>
<td>.998</td>
<td>-.355</td>
<td>.361</td>
</tr>
<tr>
<td>-2</td>
<td>.996</td>
<td>-.651</td>
<td>.258</td>
</tr>
<tr>
<td>-1</td>
<td>1.002</td>
<td>.282</td>
<td>.390</td>
</tr>
<tr>
<td>0</td>
<td>.982</td>
<td>-1.683</td>
<td>.047</td>
</tr>
<tr>
<td>+1</td>
<td>1.008</td>
<td>1.353</td>
<td>.089</td>
</tr>
<tr>
<td>+2</td>
<td>1.014</td>
<td>1.630</td>
<td>.052</td>
</tr>
<tr>
<td>+3</td>
<td>1.003</td>
<td>.286</td>
<td>.388</td>
</tr>
<tr>
<td>+4</td>
<td>.997</td>
<td>-.379</td>
<td>.353</td>
</tr>
</tbody>
</table>

<sup>a</sup>One-tailed test.

FINANCIAL BATH REPORTING STRATEGY

The third major research question addressed in this experiment relates to the successful implementation of a financial bath as a means of minimizing an adverse investor reaction to the recognition of a material discretionary loss. In reviewing loss recognition under present generally accepted accounting principles in Chapter 2, it was indicated that management does appear to be able to exercise its discretion in recognizing certain types of
losses, especially those instances where a diminution in the utility of a resource precedes its actual physical disposition. A financial bath reporting strategy suggests that management should postpone recognition of material unfavorable events until such time as certain conditions exist within the firm. Allegedly, the objective of timing loss recognition is to minimize an expected adverse investor reaction.

The conditions identified in Chapter 3 as being conducive in implementing a financial bath are listed in Table 6 and are summarized below.

1. Current results are adverse - current year's income before discretionary losses is less than the net income of the previous year.
2. **Current market security price is depressed** - current average market price per share of common stock is less than the average market price per share in the prior year.

3. **Offsetting gain** - an extraordinary gain is present in the current year to partially or fully offset the reaction to the discretionary loss.

These conditions are tested by partitioning the 60 sample companies into six groups on the basis of the presence or absence of the stated conditions. The mean error term for all the companies in each group is utilized as input for Z tests and a two-way analysis of variance design in testing for significant differences. Each null hypothesis is restated and the results of the tests are reported and analyzed separately.

**Adverse Income Condition**

In order to test the adverse income condition, the mean error term for Group I and Group II companies are compared for a significant difference. If a period of adverse results is a conducive condition for implementing a financial bath, we would expect to observe a lesser negative reaction in the Group I companies than in the Group II companies. This proposition is tested in the form of the following hypothesis.

**Null hypothesis**: Of those companies recognizing a discretionary loss (bath companies), there is no significant difference between the $\bar{e}_t$ of companies whose income before the discretionary loss is less than the prior year's net income (Group I), and the $\bar{e}_t$ of companies whose income before the discretionary loss is not less than the prior year's net income (Group II).
Alternative hypothesis: The $\bar{e}_t$ for Group I companies is not equal to the $\bar{e}_t$ of Group II companies.

A two-tailed Z test was applied to the mean error terms for Group I and Group II companies for week 0. The null hypothesis should be rejected if the computed Z statistic is greater than the critical value of 1.96 at the .05 level of significance. The relevant statistics and results of the test appear in Table 10.

Table 10

Results of Test for Significance Between the Mean Error Terms of Group I and Group II Companies in the Week of Loss Announcement

<table>
<thead>
<tr>
<th></th>
<th>Group I Companies</th>
<th>Group II Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean error terms in week 0</td>
<td>0.980</td>
<td>0.982</td>
</tr>
<tr>
<td>Sample standard deviations</td>
<td>0.087</td>
<td>0.082</td>
</tr>
<tr>
<td>Number of companies</td>
<td>14</td>
<td>46</td>
</tr>
<tr>
<td>Computed Z value</td>
<td>-0.075</td>
<td></td>
</tr>
<tr>
<td>Critical Z value</td>
<td>-1.960</td>
<td></td>
</tr>
</tbody>
</table>

The computed Z value of -0.075 is not greater than the critical value at the chosen .05 level of significance; consequently, the null hypothesis cannot be rejected so, therefore, it is accepted. Based upon this test, it is concluded that management cannot significantly minimize
a negative investor reaction to a discretionary loss by timing its recognition in a period when results are adverse relative to the previous year.

An eight-week profile of the mean error terms for Group I and Group II companies appears in Figure 8. The $\bar{e}_t$ for both Groups is less than 1.0 for week 0 indicating a negative investor reaction to the announcement of the discretionary loss. However, it is fairly obvious that there is no significant difference in the $\bar{e}_t$ of the two groups in week 0. As a matter of fact, there appears to be a similar pattern of investor reaction for the entire eight-week test period. A two-way classification analysis of variance test was employed to test simultaneously for a significant difference between the $\bar{e}_t$ of Group I and Group II companies and between the eight weeks in the test period. This two-way classification ANOVA design was specified in Chapter 4 where $j$ was defined as the presence or absence of the test conditions classified as Group I and Group II, and $k$ was defined as the weekly time periods identified as $-3, -2, -1, 0, +1, +2, +3, +4$. The mean error terms for both groups for each week is shown in Table 11, and the results of the ANOVA test appear in Table 12.

The results of the ANOVA test demonstrate that there is no significant difference between the $\bar{e}_t$ for Group I and Group II for all weeks in the test period,
Mean Error Terms for Group I and Group II Companies

Figure 8

$$\bar{e}_t = \frac{1}{n} \sum_{i=1}^{n} (1 + e_{it})$$
Table 11
Mean Error Terms for Group I and Group II Companies for Each Week in Test Period

<table>
<thead>
<tr>
<th>Week</th>
<th>Group I</th>
<th>Group II</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3</td>
<td>.999</td>
<td>.997</td>
</tr>
<tr>
<td>-2</td>
<td>.981</td>
<td>1.001</td>
</tr>
<tr>
<td>-1</td>
<td>1.010</td>
<td>.999</td>
</tr>
<tr>
<td>0</td>
<td>.980</td>
<td>.982</td>
</tr>
<tr>
<td>+1</td>
<td>.999</td>
<td>1.011</td>
</tr>
<tr>
<td>+2</td>
<td>1.015</td>
<td>1.013</td>
</tr>
<tr>
<td>+3</td>
<td>1.012</td>
<td>1.000</td>
</tr>
<tr>
<td>+4</td>
<td>.987</td>
<td>1.000</td>
</tr>
</tbody>
</table>

and no significant difference between the $\bar{e}_t$ in the eight-week period nor is there an interaction effect.

Based upon the tests performed in this section, it is concluded that a period of adverse results is not conducive to implementing a financial bath. The alleged effect of minimizing a negative investor reaction is not supported by the empirical data gathered in this experiment.

Depressed Security Price Condition

The mean error terms for Group III and Group IV companies are observed to test for a significant difference in investor reaction to the announcement of a
Table 12

Results of Two-Way Analysis of Variance Test of the Adverse Income Condition

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Degree of Freedom</th>
<th>Mean Square</th>
<th>F Statistic</th>
<th>Probability of the Statistic Occurring by Chance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment effect j, income condition</td>
<td>1</td>
<td>0.00&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.1638</td>
<td>.6889</td>
</tr>
<tr>
<td>Treatment effect k, weekly time period</td>
<td>7</td>
<td>0.00&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.2616</td>
<td>.2668</td>
</tr>
<tr>
<td>Interaction effect jk</td>
<td>7</td>
<td>0.00&lt;sup&gt;a&lt;/sup&gt;</td>
<td>0.3985</td>
<td>.9032</td>
</tr>
<tr>
<td>Within</td>
<td>464</td>
<td>479</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>Computer rounding.

discretionary loss when the company's security prices are selling at different levels relative to the previous year. A financial bath reporting strategy suggests that a discretionary loss should be recognized in a period when the company's stock is selling at depressed levels relative to prior periods. If a period of depressed security prices is a condition conducive to implementing a financial bath, then we would expect to observe a lesser $\bar{e}_t$ for Group III companies in week 0 than for Group IV
companies. This proposition is tested by the following hypothesis:

Null hypothesis: Of those companies recognizing a discretionary loss (bath companies), there is no significant difference between the $\bar{e}_t$ of companies whose average market price per share of common stock is less than the prior year's average market price per share (Group III), and the $\bar{e}_t$ of companies whose average market price per share of common stock is not less than the average market price per share in the prior year (Group IV).

Alternative hypothesis: The $\bar{e}_t$ for Group III companies is not equal to the $\bar{e}_t$ of Group IV companies.

The results of a two-tailed Z test appears in Table 13 with relevant statistics. The computed Z value of -1.180 is not greater than the critical value of -1.96, therefore the null hypothesis cannot be rejected. The mean error terms for both groups are less than 1.0 indicating an unfavorable investor reaction. Group III companies, whose security prices are at depressed levels, show a greater downward price adjustment in week 0 than Group IV companies. This is just the opposite effect suggested by the financial bath reporting strategy. Yet this observed difference is not significantly different and could be attributed to chance factors; hence, no inference will be drawn from this result.

An eight-week profile of the mean error terms for Group III and Group IV companies are shown in Figure 9. The pattern of investor response is much more diffused for this test condition than the adverse income test condition
Table 13
Results of Test of Significance Between the Mean Error Terms of Group III and Group IV Companies in the Week of Loss Announcement

<table>
<thead>
<tr>
<th></th>
<th>Group III Companies</th>
<th>Group IV Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean error terms in week 0</td>
<td>.972</td>
<td>.996</td>
</tr>
<tr>
<td>Sample standard deviations</td>
<td>.094</td>
<td>.061</td>
</tr>
<tr>
<td>Number of companies</td>
<td>36</td>
<td>24</td>
</tr>
<tr>
<td>Computed Z value</td>
<td></td>
<td>-1.180</td>
</tr>
<tr>
<td>Critical Z value</td>
<td></td>
<td>-1.960</td>
</tr>
</tbody>
</table>

reported in the previous section (see Table 14). A two-way classification ANOVA test was employed to simultaneously test for a significant difference between the $\bar{e}_t$ for the two groups, for all the weeks in the test period; between the $\bar{e}_t$ for each of the eight weeks and if there was an interaction effect between the groups and weeks. The results are reported in Table 15.

There is no significant difference as a result of the j and k treatments at the conventional .05 level of significance. There is, however, a significant effect as a result of the interaction between the $\bar{e}_t$ of groups and weeks. Individual Z tests for each week between groups indicates a significant difference between the $\bar{e}_t$ of
Figure 9

Mean Error Terms for Group III and Group IV Companies

\[ \bar{e}_t = \frac{1}{n} \sum_{i=1}^{n} (1 + e_{it}) \]
Table 14
Mean Error Terms for Group III and Group IV Companies for Each Week in Test Period

<table>
<thead>
<tr>
<th>Week</th>
<th>Group III</th>
<th>Group IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3</td>
<td>1.006</td>
<td>.986</td>
</tr>
<tr>
<td>-2</td>
<td>.996</td>
<td>.995</td>
</tr>
<tr>
<td>-1</td>
<td>.987</td>
<td>1.024</td>
</tr>
<tr>
<td>0</td>
<td>.972</td>
<td>.996</td>
</tr>
<tr>
<td>+1</td>
<td>1.008</td>
<td>1.008</td>
</tr>
<tr>
<td>+2</td>
<td>1.027</td>
<td>.994</td>
</tr>
<tr>
<td>+3</td>
<td>1.011</td>
<td>.991</td>
</tr>
<tr>
<td>+4</td>
<td>1.011</td>
<td>.991</td>
</tr>
</tbody>
</table>

Group III and Group IV companies existing in week -1 and +2. This significant difference can be attributed to a significant favorable investor response for Group IV companies in the week prior to the loss announcement and a significant favorable investor response for Group III companies in week +2. Since the negative investor response in week 0 for Group III companies is also significantly different from the expected response of 1.0, the significant favorable investor response in week +2 is not particularly unusual. A likely inference is that it represents a modification of investors' initial response in
week 0 as more information about the discretionary loss becomes available.

Table 15

Results of Two-Way Analysis of Variance Test of the Depressed Security Price Condition

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Degree of Freedom</th>
<th>Mean Square</th>
<th>F Statistic</th>
<th>Probability of the F Statistic Occurring by Chance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment effect j, stock price condition</td>
<td>1</td>
<td>0.00&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.2803</td>
<td>.6035</td>
</tr>
<tr>
<td>Treatment effect k, weekly time period</td>
<td>7</td>
<td>0.00&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.1566</td>
<td>.3259</td>
</tr>
<tr>
<td>Interaction effect jk</td>
<td>7</td>
<td>0.01</td>
<td>2.2242</td>
<td>.0309</td>
</tr>
<tr>
<td>Within</td>
<td>464</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>479</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>Computer rounding.

The negative investor response in week 0 for Group IV companies is not significant at the .05 level of significance; consequently, the significant favorable investor reaction observed in week -1 is difficult to interpret. The only statement that can be made is that as a whole, Group IV companies are viewed more favorably by the market in the current year than in the previous year.
In the eight-week profile, there is no significant negative investor reaction in any of the weeks. The announcement of a discretionary loss does not appear to significantly alter investors' expectations about future returns for these companies.

On the basis of the tests performed in this section, it is concluded that a period of depressed security prices is not a conducive condition in implementing a financial bath. Furthermore, the evidence presented implies just the opposite effect; that is, a lesser negative investor reaction occurs when the company's security is selling at a level above what it was in the previous year. However, it must be remembered that the lesser negative response is not significant in a statistical sense.

Extraordinary Gain Condition

The final condition suggested by a financial bath reporting strategy was tested by observing the mean error terms for companies in Group V and Group VI in the week of loss announcement. Allegedly, a negative investor reaction to the announcement of a discretionary loss can be minimized if there is also an extraordinary gain to partially or fully offset the loss. If this contention is valid, we would expect to observe a lesser $\bar{e}_t$ for those companies classified as Group V than those classified as Group VI.
A two-tailed $Z$ test at a .05 level of significance was employed to test the following hypothesis:

**Null hypothesis:** Of those companies recognizing a discretionary loss (both companies), there is no significant difference between the $\bar{\varepsilon}_t$ of companies who recognize an extraordinary gain (Group V), and the $\bar{\varepsilon}_t$ of companies who do not recognize an extraordinary gain (Group VI).

**Alternative hypothesis:** The $\bar{\varepsilon}_t$ for Group V companies is not equal to the $\bar{\varepsilon}_t$ of Group VI companies.

The relevant statistics for the two groups of companies along with the results of the $Z$ test appear in Table 16.

**Table 16**

Results of Test of Significance Between the Mean Error Terms of Group V and Group VI Companies in the Week of Loss Announcement

<table>
<thead>
<tr>
<th></th>
<th>Group V Companies</th>
<th>Group VI Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean error terms in week 0</td>
<td>.978</td>
<td>.986</td>
</tr>
<tr>
<td>Sample standard deviations</td>
<td>.070</td>
<td>.094</td>
</tr>
<tr>
<td>Number of companies</td>
<td>29</td>
<td>31</td>
</tr>
<tr>
<td>Computed $Z$ value</td>
<td>- .354</td>
<td></td>
</tr>
<tr>
<td>Critical $Z$ value</td>
<td>-1.960</td>
<td></td>
</tr>
</tbody>
</table>
Both groups of companies have a mean error term of less than 1.0 indicating that there is a downward price adjustment for both groups of companies when the discretionary loss is announced. However, the computed \( Z \) value of \(-0.354\) is less than the critical value at the .05 level of significance indicating that the null hypothesis cannot be rejected and, therefore, is accepted. Based upon the evidence provided by this test, a period in which an extraordinary gain is recognized is not a conducive condition for implementing a financial bath.

Figure 10 shows the eight-week profile for these two groups of companies (see Table 17 for mean error terms). The pattern of investor reaction is not significantly different in any week with week +2 being the only exception. A two-way ANOVA test was employed to test simultaneously for significant differences in the mean error terms between groups and weeks. The results of the test appear in Table 18. At the chosen .05 level of significance, there is no significant difference between the mean error terms between groups, between weeks, nor is there an interaction effect. Although not significant at the conventional .05 level of significance, the computed \( F \) statistic is significant at the .0702 level of significance for the effect between groups. This result can be mainly attributed to a significantly large favorable investor response occurring in week +2 for Group VI companies. There is no significant
Mean Error Terms for Group V and Group VI Companies

\[ \bar{e}_t = \frac{1}{n} \sum_{i=1}^{n} (1 + e_{it}) \]
investor response, either favorable or unfavorable, for any of the three weeks prior to week 0 supporting the judgment that there was apparently no material news leakage before the loss announcement. The one significant favorable response in week +2 for Group VI companies can also be attributed to a modification of the initial negative reaction observed in week 0. Admittedly, though, the response seems unusually large and may very well be the market's reaction to other news about the companies in Group VI.

Table 17
Mean Error Terms for Group V and Group VI Companies for Each Week in Test Period

<table>
<thead>
<tr>
<th>Week</th>
<th>Group V</th>
<th>Group VI</th>
</tr>
</thead>
<tbody>
<tr>
<td>-3</td>
<td>0.987</td>
<td>1.008</td>
</tr>
<tr>
<td>-2</td>
<td>0.993</td>
<td>0.999</td>
</tr>
<tr>
<td>-1</td>
<td>1.001</td>
<td>1.003</td>
</tr>
<tr>
<td>0</td>
<td>0.978</td>
<td>0.986</td>
</tr>
<tr>
<td>+1</td>
<td>1.007</td>
<td>1.009</td>
</tr>
<tr>
<td>+2</td>
<td>0.989</td>
<td>1.037</td>
</tr>
<tr>
<td>+3</td>
<td>1.014</td>
<td>0.992</td>
</tr>
<tr>
<td>+4</td>
<td>0.990</td>
<td>1.004</td>
</tr>
</tbody>
</table>
On the basis of the evidence presented in this section, it is concluded that the recognition of an extraordinary gain concurrently with a discretionary loss does not on the average result in a lesser negative investor reaction in the week of loss announcement. Consequently, the extraordinary gain condition of a financial bath reporting strategy is not supported by this research.

Table 18

Results of Two-Way Analysis of Variance Test of the Extraordinary Gain Condition

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Degree of Freedom</th>
<th>Mean Square</th>
<th>F Statistic</th>
<th>Probability of the F Statistic Occurring by Chance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment effect j, extraordinary gain condition</td>
<td>1</td>
<td>.01</td>
<td>3.2074</td>
<td>.0702</td>
</tr>
<tr>
<td>Treatment effect k, weekly time period</td>
<td>7</td>
<td>.01</td>
<td>1.4566</td>
<td>.1800</td>
</tr>
<tr>
<td>Interaction effect jk</td>
<td>7</td>
<td>.01</td>
<td>1.6308</td>
<td>.1239</td>
</tr>
<tr>
<td>Within</td>
<td>464</td>
<td></td>
<td></td>
<td>479</td>
</tr>
</tbody>
</table>
PROFILE OF STUDY

In this section, some relevant characteristics of the sample companies will be reported in order to provide a perspective for the analysis of the results of this experiment. Comparisons with other studies will be made where appropriate.

Frequency of Discretionary Loss Decisions

The research methodology employed in this study was not specifically designed to indicate the frequency of discretionary loss decisions or the trend of their appearance in financial statements. However, the data gathered in this study tends not to be at variance with the conclusions reported in other studies which addressed this aspect directly. The time reference relevant to this project consisted of accounting year-ends from October 1, 1972, to September 30, 1973. Forty-four of the 60 companies (approximately 73 percent) recognizing discretionary losses had 1972 calendar year-ends. The frequency of discretionary loss recognition in this study can be roughly compared to the frequencies reported in two other studies.

As indicated in Chapter 3, Copeland and Moore set out to determine the frequency with which discretionary
loss decisions appeared in annual reports. Based upon a sample of 907 companies listed on the Compustat Tapes for a five-year period extending from 1966 to 1970, they found an increasing trend in the number of companies recognizing discretionary losses. The range in frequencies was from approximately three percent in 1966 to seven and one-half percent in 1970 (see Table 2). They concluded that this represented an increasing financial reporting phenomenon. Although their data terminate with 1970, a straight-line projection of the trend exhibited in their five-year test period would project about a nine percent frequency rate for 1972.

In a similar endeavor, Charles Merz took a random sample of fifty Fortune 500 Companies in each of the six years from 1967 through 1972. He also found an increasing trend ranging from four percent in 1967 to sixteen percent in 1972 (see Table 3).

In the present study, after observing five hundred annual reports for the period October, 1972, to September, 1973, 60 companies were found which recognized a material discretionary loss—a rate of 12 percent.

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It should be cautioned that the above frequencies are not comparable. The sample companies do not extend precisely over the same time period nor were they drawn from the same population. In the light of these limitations, the reader is left to evaluate the significance of the reported frequencies. However, it is this writer's personal view, based upon the data gathered in this study, that the practice of recognizing discretionary losses in annual reports is a common occurrence. Nothing was found which would indicate that the increasing trend documented in the other two studies has abated.

**Effect of General Market Conditions**

The methodology employed in this study required the observation of security price changes in order to determine investor's reaction to the announcement of a discretionary loss. A market model described in Chapter 4 was utilized to remove the effects of price changes occurring as a result of general economic conditions. In order to assess what portion of the observed price changes that were attributable to market-wide factors, the correlation coefficient and coefficient of determination was computed for each of the 60 companies in the six-month regression period (see Appendix C). On the average, approximately 13 percent of the variation observed in security price changes can be explained by the variation in the market index $PR_{mt}$. 
This association is rather low indicating that the results of the study would not have been materially different had attention been focused on the weekly price relative \( PR_{it} \), rather than on the error terms \( e_{it} \).

**Characteristics of Sample Companies**

In reviewing the annual reports of the 60 sample companies, several companies recognized more than one type of discretionary loss. A total of 83 discretionary losses were recognized by the sample companies. Table 19 gives the distribution of the types recorded.

**Table 19**

**Discretionary Losses by Broad Category**

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposal of an operating segment</td>
<td>34</td>
<td>41</td>
</tr>
<tr>
<td>Discontinuance of a product line</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Inventory write-downs</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Shut-down of plants, equipment disposals</td>
<td>17</td>
<td>21</td>
</tr>
<tr>
<td>Write-down of investments</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Other asset write-downs</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Miscellaneous reserves, pension and severance costs</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>83</td>
<td>100</td>
</tr>
</tbody>
</table>
Approximately 41 percent of the losses involved the estimated loss to dispose of an operating segment. Another 21 percent concerned the estimated losses in closing down obsolete plants and disposal of equipment. Hence, approximately 62 percent of the discretionary losses recognized involved plant and equipment items. It is interesting to note that plant and equipment resources are quite susceptible to a loss in economic utility even though their physical state may display no evidence of deterioration. Since mere observation does not always reveal a loss of utility, management can readily exercise its discretion when it might choose to write down or dispose of these resources.

Another interesting point relevant to the methodology used in this study is the day on which the first public disclosure of the loss appeared in *The Wall Street Journal*. Table 20 gives a distribution of the days on which loss announcements were made. The Friday issue of the *Journal* contains the highest frequency of loss announcements which probably means that the information was made public by management the day before on Thursday. A concern of this study is the number of loss announcements appearing in the Monday issue. If the announcements were publicly made on the previous Friday before the market closed, the measurement of investor response in the week of announcement may not have been measured accurately.
Based upon the eight-week profiles developed for the test period, there does not appear to be any significant investor activity in the week prior to the identified loss announcement week. This would tend to imply that the loss announcement week was not erroneously identified.

Table 20

Day on Which Loss Announcement Appeared in The Wall Street Journal

<table>
<thead>
<tr>
<th>Day</th>
<th>Number of Companies</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Tuesday</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>Wednesday</td>
<td>14</td>
<td>23</td>
</tr>
<tr>
<td>Thursday</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Friday</td>
<td>20</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

It was also found that fourteen of the sixty sample companies, or approximately 23 percent, announced the discretionary loss at the same time the annual earnings were announced. Forty-six companies or 77 percent announced their decision to recognize a discretionary loss on some other date. In his study of the informational content of annual earnings announcements, Beaver found that there is a significant investor response in the week
annual earnings are announced. There is the possibility that the observed investor reaction in this study for the 14 companies who announced the discretionary loss in conjunction with annual earnings may reflect the market's reaction to the annual earnings. However, it is also probable that investors act upon their expectations of future returns and that by the time annual earnings are reported, much of the information contained in the earnings announcement has already been anticipated and acted upon by the market. A price response in the week of earnings announcement is likely to be a reaction to new information that was not expected or anticipated. Certainly, the recognition of a material discretionary loss would, in most instances, be difficult to anticipate, since their appearance in financial statements is the result of a discretionary decision.

While scanning The Wall Street Journal Index for the issue date of a discretionary loss announcement, any articles identifying a top management change was recorded. Nine companies or approximately 15 percent of the sample companies were identified as management change companies. As mentioned earlier, a study by Michael Moore found a significant relationship between changes in top management

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and the recognition of discretionary accounting decisions which reduced income.⁵ No standard for comparison was developed in this study to determine whether the number of management changes in the sample companies were any different from the number of management changes that take place in companies which did not recognize discretionary losses. There is no way to determine if the losses precipitated a change in management or vice versa.

A final characteristic noted about the sample companies was that 93 percent were audited by the "Big Eight" CPA firms. Table 21 indicates the distribution of audits by the public accounting firms for the sample companies.

Forty-seven companies or approximately 78 percent of the sample companies received an unqualified opinion from their auditors, whereas the opinions for thirteen companies or 22 percent were qualified. Most of the qualified opinions were of the "subject to" variety and indicate that in a number of instances, there is a considerable amount of uncertainty about matters yet unresolved.

SUMMARY AND IMPLICATIONS

The results of the experiment reported in this chapter indicate that the announcement of a material

Table 21
Distribution of Auditing CPA Firms

<table>
<thead>
<tr>
<th>CPA Firms</th>
<th>Number of Companies</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arthur Andersen &amp; Co.</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>Coopers &amp; Lybrand</td>
<td>7</td>
<td>12</td>
</tr>
<tr>
<td>Ernst &amp; Ernst</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Haskin &amp; Sells</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Peat, Marwick, Mitchell &amp; Co.</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>Price Waterhouse &amp; Co.</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Touche, Ross &amp; Co.</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Arthur Young &amp; Co.</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>60</td>
<td>100</td>
</tr>
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discretionary loss has informational content for investors. The announcement elicits an above-average price adjustment in security prices in the week that the loss announcement is made. Evidence of investor reaction is reflected in a significantly greater mean price adjustment in the week of loss announcement relative to the mean price response experienced by the firms in a six-month period prior to the loss announcement. Based upon this evidence, it can be concluded that the announcement of a discretionary loss imparts new information to investors about events with real
economic significance. This finding tends to support the SEC's contention in Accounting Series Release No. 138 that material charges as a result of discretionary management decisions should be identified and disclosed at the earliest possible time. This study provides evidence that disclosure of these types of events convey information such that investors' expectations as to future security returns are significantly altered.

Another important finding of this experiment is that the announcement of a material discretionary loss results in an initial negative investor reaction. This reaction is evidenced by a significant downward price adjustment in the security prices of firms in the week of loss disclosure. This reaction confirms management's suspicion that the announcement that there has been a diminution in the company's resources without creating an equivalent utility, is viewed as "bad news" by investors and reflects unfavorably upon their stewardship and administration. This could very well be the basis for the apparent attempt by management to manipulate reported income by timing the release of bad news in a period when certain conditions are present. The rationale is that release of the bad news when these conditions are present will in some way obscure or reduce an expected negative investor reaction. That management does in fact exhibit this type of behavior is supported by the other research
studies reviewed in this paper. A major question left unresolved is whether or not management is successful in employing a loss timing strategy to minimize an expected adverse investor reaction. Three conditions which allegedly should be present in order to minimize an adverse investor reaction to a loss announcement were tested in this research. They included (1) an adverse income condition, (2) depressed stock price condition, and (3) an extraordinary gain condition.

The following null hypothesis was tested: For companies recognizing material discretionary losses, there is no significant difference in investor reaction between those companies where the condition was present and those companies where the condition was not present. For each one of the above three conditions, the null hypothesis could not be rejected at the .05 level of significance.

On the basis of this evidence, it can be concluded that even though management may think that a negative investor reaction to a discretionary loss can be minimized when certain conditions are present, the empirical evidence of investor reaction developed in this study does not support this effect. The many references to the "financial bath" in the financial literature and their implications that management is somehow "fooling" or misleading investors appears to be a myth and not supported by fact.
The results of this experiment are entirely consistent with the efficient markets hypothesis. The announcement of a discretionary loss is perceived by the market as an event of real economic substance; consequently, significant price adjustments were observed in the week the loss was disclosed. Investor reaction was rapid and negative. But timing the release of the loss announcement when certain conditions were present did not significantly influence investor reaction.
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This research project had two principal but mutually supportive thrusts. First, the conceptual nature of an accounting loss under contemporary generally accepted accounting principles was determined. This initial phase was prerequisite to an evaluation of the feasibility of alleged abuses ascribed to this area of accounting practice. Second, an empirical investigation was undertaken to measure investor reaction to the announcement of a material discretionary loss. The evidence gathered in this empirical phase was used to evaluate the effects of a financial reporting activity identified as a financial bath. A financial bath was characterized as the sudden appearance of a large material loss in an entity's current income statement which did not readily appear to be the result of events that had taken place in the current period.

This concluding chapter restates the problem that the research specifically addressed. The research methodology employed is reviewed along with a summary of the major findings. Finally, the results will be interpreted
and conclusions reached have complementary implications for both the fields of accounting and finance. Recommendations as to future research extensions in this area are also discussed.

STATEMENT OF THE PROBLEM

In recent years, financial analysts, the financial press, and others have directed criticism toward companies which allegedly engage in a financial reporting practice known as a financial bath. The inference is that these firms are engaged in some form of deceptive reporting practice which could mislead investors and others who have an interest in the economic affairs of the firms. Since a financial bath is implemented through the medium of accounting financial statements, there is the implication that there is a deficiency in the accounting practices employed by these firms. Conceivably, this could be the result of a lack of guidance provided by generally accepted accounting principles, or perhaps it reflects the opportunistic interpretation of existing guidelines.

Research into the financial bath phenomenon is not extensive, yet there is ample reference to it in explaining certain firm behavior. A review of the financial literature indicates that references to financial bath activity and its consequences are often based upon conclusions reached as a result of a limited number of observations
without any organized research effort to empirically support the allegations. Unless evidence is provided to support these allegations, the inferences as to consequences along with the implied deficiencies in accounting practices reflect only the individual author's personal opinion that a problem may exist. A problem would seem to exist if it can be shown that this activity occurs frequently and is not just a manifestation of abnormal reporting by a few isolated firms.

Two substantial research studies reviewed in this paper tend to give credence to the notion that the financial bath is a financial reporting problem and that it is becoming more widespread. In particular, the joint study of Ronald Copeland and Michael Moore, and another study by Charles Merz provided "hard" evidence that firms do indeed take financial baths. Copeland and Moore found a frequency rate of financial bath activity which ranged from three percent to seven and one-half percent over a five-year period extending from 1966 to 1970. Charles Merz, utilizing a smaller sample, found a frequency rate ranging from four percent to eighteen percent over a six-year period extending from 1967 to 1972. Both studies attributed the bath activity observed, at least in part, to deficiencies in current accounting practice in the area of loss recognition. In addition, both studies tested whether there is a relationship between financial bath activity and certain characteristics or conditions which may exist in the firm.
In the casual references to financial bath activity, it is often suggested that management appears to time loss recognition in a period when certain conditions are present. In summary, the conditions most frequently mentioned are:

1. **Adverse income condition** - current year's income before the material loss is less than the net income of the previous year.

2. **Depressed security price condition** - current average market price per share of common stock is less than the average market price per share in the prior year.

3. **Extraordinary gain condition** - an extraordinary gain is present in the current year to partially or fully offset the material loss.

In the Merz study, a statistically significant relationship was found between bath activity and both the adverse income condition and extraordinary gain condition. Copeland and Moore also found a statistically significant relationship between bath activity and the adverse income condition, and, although they tested the security price condition, their results proved inconclusive with respect to this condition.

The fact that a statistical relationship has been found between bath type behavior and the existence of certain conditions implies that management perceives these conditions as being conducive in implementing a financial bath. A thorough analysis of the comments of analysts, financial executives, and critics of the financial bath phenomenon strongly suggests that bath activity is often a deliberate reporting strategy employed by management to
minimize a perceived negative reaction by investors to the news that a material loss has been suffered. In other words, management is faced with reporting a loss of resources under its stewardship to investors who have an interest in those resources. Consequently, the reporting of such news would be perceived by management as an undesirable situation reflecting unfavorably upon their administration. It is not inconceivable that if management could exercise discretion when the resource diminution can be recognized, they would make an effort to release the news in a period they perceive would cause the least negative investor response. Apparently, the conditions of adverse income or depressed security prices relative to prior years and the presence of an extraordinary gain are perceived by management as conditions whose existence are conducive in minimizing an expected adverse investor reaction to a material loss.

Whether or not investors do react to news of a material loss and if a reaction is different when certain conditions are present is subject to empirical verification and was a primary point of investigation in this study. Preliminary to this determination, however, a thorough analysis of the nature of an accounting loss was necessary to provide an accounting perspective by which the feasibility and propriety of financial bath activity can be evaluated.
RESEARCH METHODOLOGY

The research plan followed in this project included both a descriptive and empirical phase. The descriptive phase was necessary to establish the accounting concept of a loss under generally accepted accounting principles as it is presently interpreted in contemporary practice. The empirical phase required the gathering of evidence regarding the effects of financial bath activity for the purpose of a definitive statement or description of the actual effects. As indicated previously, many of the references to the effects of financial bath activity were not supported by evidence gathered in an organized research effort, but merely reflect the alleged effects perceived by the authors' observation of a limited number of cases.

Descriptive Phase

The initial procedure followed in describing the nature of an accounting loss was to undertake a thorough search of the accounting literature for references to the symbol "loss." The publications of the American Institute of Certified Public Accountants, the American Accounting Association, accounting textbooks, and articles by noted accounting scholars proved particularly useful in identifying the referents of this accounting term. Following this process of identification, a comparative analysis
was undertaken with similarities and points of divergence being noted.

Next a step-by-step procedure was followed in developing the meaning of the term loss from its most common generalized usage to its specific usage as a technical term in the field of accounting. Following its separate conceptual identification, the operational procedures concerning loss recognition, valuation, and classification was discussed within the existing accounting model.

Describing the conceptual nature of an accounting loss was necessary as a basis for assessing whether the implementation of a financial bath through loss recognition was feasible and within the scope of the broad limits established by generally accepted accounting practices. The results of this descriptive phase are reported in the summary of findings section of this chapter.

**Empirical Phase**

Evidence of the effects of a financial bath was obtained in the empirical phase of this research by measuring the reaction of investors to the announcement that a material loss was to be recognized. In order to limit the scope of this study, attention was focused on those losses which were identified as discretionary, that is, a loss in economic resources which had not been evidenced by an exchange transaction with an outside party and whose recognition depended primarily on a
managerial decision. In the judgment of this writer, this type of loss would be most susceptible to the timing requirements in the implementation of a financial bath.

Investor reaction to the announcement of a discretionary loss was measured by observing changes in security price returns at the time of the first public disclosure by a firm that a discretionary loss was to be recognized. A substantial body of research in portfolio theory indicates that the market is efficient in processing new information and will react rapidly to all publicly available information. The reaction takes the form of changes in the equilibrium price of a security as a result of a change in the market's assessment of future returns for that security. Therefore, if the announcement of a discretionary loss has informational content for investors, their assessment of this news can be observed in the changes that take place in the firm's security price. A security weekly rate of return was computed by the following formula:

$$PR_{it} = \ln \left[ \frac{D_{it} + P_{i}}{P_{it-1}} \right]$$

A security's weekly return can be affected by a number of factors. The state of the economy and general economic conditions can influence the return on a security. In addition there may be certain industry-wide factors exerting an influence on those companies in that industry. Finally, there are factors unique to a specific firm which
affects its return. Since this study was concerned with the portion of the weekly rate of return which is the result of the announcement of the discretionary loss, it was necessary to remove the return that was attributable to economy-wide and industry-wide factors. In order to accomplish this, economy-wide factors were removed by employing a simplified market model which linearly relates the return on individual securities \((PR_{it})\) to a market return \((PR_{mt})\) as reflected in Standard and Poor's Industrial Price Index of 425 industrial companies. Symbolically, the model utilized is as follows:

\[
PR_{it} = a_i + b_i PR_{mt} + e_{it}
\]

No special procedures were employed to remove industry-wide factors other than cross-sectionally averaging because the sample firms were, for the most part, large, well-diversified firms and it did not appear that any one industry would materially bias the results of this study.

**Sampling plan and data collection.** Each annual report for the 500 companies listed in the May, 1974, issue of Fortune magazine was examined for the recognition of a discretionary loss which reduced income before the loss by 10 percent or more. Sixty companies were found which met this criterion indicating a 12 percent frequency rate. Following this, The Wall Street Journal Index was examined for the first public disclosure in The Wall Street Journal of the discretionary loss for each of the 60 sample
companies. The appropriate edition of the *Journal* was consulted to verify the exact date of public disclosure. The week ending Friday that included the loss announcement was identified as the announcement week (week 0). The next step involved obtaining weekly closing common stock prices for each of the sample companies for a period of 34 weeks. Weekly closing values for *Standard and Poor's Industrial Price Index* were also obtained for the necessary weeks.

**Methodology.** In the market model the terms $a_i + b_i PR_{mt}$ represent the expected return based upon general economic conditions affecting all securities. The error term $e_{it}$ represents the unexpected return that can be attributed to those factors unique to the firm. Estimates of the parameters $a_i$ and $b_i$ were obtained by regressing the weekly logarithmic price return for each firm on the weekly logarithmic price return of the market index for a period of 26 weeks prior to the test period. The test period consisted of an eight-week period surrounding the loss announcement week (week -3, -2, -1, 0, +1, +2, +3, +4).

The estimated parameters for each firm was used to predict each firm's return in each week of the test period. The estimated security return of each firm was then subtracted from its actual ex post return in the weeks of the test period in order to arrive at the error term. Symbolically, the error term was computed as:
The error terms for each company were cross-sectionally averaged in order to arrive at a mean error term for all companies in each of the eight-week test periods.

\[ \bar{e}_{it} = \frac{1}{n} \sum_{i=1}^{n} (1 + e_{it}) \]

Attention was focused on the mean error term to assess the impact of the announcement of the discretionary loss.

**Hypotheses tested.** The first test concerned the magnitude of investor reaction in the week the loss was announced. If the loss announcement had informational content, we would expect a greater price adjustment in week 0 than in the weeks prior to the test period. A transformation of the error terms was used in order to assess the magnitude of investor reaction without regard to direction. A mean price change ratio \( (\bar{E}_t) \) was computed as follows:

\[ \bar{E}_t = \frac{1}{n} \sum_{i=1}^{n} \frac{e_{it}^2}{s_i^2} \]

The computed \( \bar{E}_t \) had an expected value of 1.0 with a value greater than 1.0 indicating an above normal price change and a value of less than 1.0 indicating a below normal price change in week \( t \). The following hypothesis was formulated:
Null hypothesis: The $\overline{E}_t$ of companies recognizing a material discretionary loss is equal to 1.0 in the week the loss is publicly announced (week 0).

Alternative hypothesis: The $\overline{E}_t$ of companies recognizing a material discretionary loss is greater than 1.0 in the week the loss is publicly announced.

If the null hypothesis was accepted, this would indicate that the announcement of a discretionary loss on the average did not possess informational content for investors such that expectations for future returns were altered. If the null hypothesis was rejected, it would indicate that the loss announcement elicited a significantly greater price response in the week of loss announcement than the mean price response experienced by the firms in a six-month period preceding the test period.

The next test was concerned with whether the announcement of a discretionary loss was perceived by investors as "bad news." Evidence of an adverse reaction would be provided by a downward price adjustment in the securities of the firms in the week of loss announcement. Attention was focused on the mean error term ($\overline{e}_t$) which had an expected value of 1.0. An $\overline{e}_t$ less than 1.0 would indicate a downward price adjustment and an unfavorable investor reaction. The following hypothesis was formulated:

Null hypothesis: The mean of the error terms ($\overline{e}_t$) in the week of loss announcement (week 0) is equal to 1.0.
Alternative hypothesis: The mean of the error terms \((\bar{e}_t)\) for the week of loss announcement (week 0) is less than 1.0.

If the null hypothesis was accepted, this would indicate that investors did not react to the announcement of the loss. If the null hypothesis was rejected, it would indicate that on the average investors do perceive the loss announcement as unfavorable news and react negatively by adjusting downward the security prices of the firms.

The final test performed in this experiment was to test whether investor reaction as measured by the mean error terms was different when certain conditions were present. The 60 sample companies were partitioned into six groups on the basis of the presence or absence of the test conditions. The conditions tested, group identification and number of companies are summarized in Table 22.

The following null hypotheses were formulated in order to test these conditions.

**Adverse income condition**

Null hypothesis: Of those companies recognizing a discretionary loss (bath companies), there is no significant difference between the \(\bar{e}_t\) of companies whose income before the discretionary loss is less than the prior year's net income (Group I), and the \(\bar{e}_t\) of companies whose income before the discretionary loss is not less than the prior year's net income (Group II).

Alternative hypothesis: The \(\bar{e}_t\) for Group I companies is not equal to the \(\bar{e}_t\) of Group II companies.
Table 22

Identification of Test Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>Condition Present</th>
<th>Condition Absent</th>
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<tbody>
<tr>
<td></td>
<td>Group</td>
<td>Number of Companies</td>
</tr>
<tr>
<td>Adverse income condition</td>
<td>I</td>
<td>14</td>
</tr>
<tr>
<td>Depressed security price condition</td>
<td>III</td>
<td>36</td>
</tr>
<tr>
<td>Extraordinary gain condition</td>
<td>V</td>
<td>29</td>
</tr>
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Depressed security price condition

Null hypothesis: Of those companies recognizing a discretionary loss (bath companies), there is no significant difference between the $\bar{e}_t$ of companies whose average market value per share of common stock is less than the prior year's average market price per share (Group III), and the $\bar{e}_t$ of companies whose average market price per share of common stock is not less than the average market price per share in the prior year (Group IV).

Alternative hypothesis: The $\bar{e}_t$ for Group III companies is not equal to the $\bar{e}_t$ of Group IV companies.

Extraordinary gain condition

Null hypothesis: Of those companies recognizing a discretionary loss (bath companies) there is no significant difference between the $\bar{e}_t$ of companies who recognize an extraordinary gain (Group V), the the $\bar{e}_t$ of companies who do not recognize an extraordinary gain (Group VI).

Alternative hypothesis: The $\bar{e}_t$ for Group V companies is not equal to the $\bar{e}_t$ of Group VI companies.
In order for this experiment to fully support the contention that investor reaction can be influenced by timing the loss announcement in a period when certain conditions are present, all of the above null hypotheses should be rejected. If the null hypotheses are accepted, this would indicate that there is no substance to the allegations of the effects of a financial bath. The following section summarizes the results of this experiment and assesses their implications.

SUMMARY OF FINDINGS

A search of the accounting literature in an effort to develop the concept of an accounting loss revealed that, although the term is frequently used in practice, it is not well-defined in the literature. The most often encountered references to losses dwell on the manner in which losses are measured and expressed in accounting rather than on the process or event which caused the measurement to be made. Another serious problem encountered concerned the widespread indiscriminate use of the symbol loss, which in many instances appeared to overlap in meaning with the accounting symbol expense. In some context, the symbols loss and expense are used interchangeably even though conceptually they represent markedly different underlying events.
In analyzing the constitutive nature of an accounting loss, the following definition was formulated which most closely incorporates the nature of a loss as it is found in a financial accounting context.

A loss is a diminution or disappearance of enterprise economic resources which results from unsuccessful business activity. The circumstances under which this occurrence takes place is when enterprise economic resources are expended or disappear without creating an equivalent utility.

A loss is measured and expressed in the same manner that economic resources are measured and expressed. Conventional accounting practice requires that the acquisition of an economic resource is properly measured and expressed in terms of the number of dollars paid (historical cost) or the dollar equivalent of other resources given in exchange. Acquisition cost is assigned proportionately to the attribute or characteristic of the resource which is perceived as having utility. A diminution in the attribute or characteristic is expressed as a proportionate decrease in number of acquisition dollars. If a diminution does not result in the creation of an equivalent utility, then the dollar reduction is the accounting measure and expression of the loss.

Conceptually, a loss should be recognized in the same period as the diminution in the resources takes place. To the extent this is accomplished, useful relationships may be established between events and environmental conditions existing at a particular time and their impact on
the economic resources of the entity. Attainment of the theoretical ideal is often difficult in practice because of the nature of some resource diminishments. Resource diminishments which are the result of a numerical reduction of the quantitative units of a resource do not usually present recognition problems. However, those which are the result of a partial or complete impairment in the utility of a resource are much more difficult to ascertain. In many instances, the resource is still physically present in its quantitative state even though it has lost its ability to generate a resource inflow equivalent to the resources expended in its acquisition. In these instances, their accounting recognition is often dependent upon a managerial decision that a loss exists. It is entirely feasible that management may choose, for one reason or another, to postpone this decision. And it is this type of situation where allegations of timing loss recognition usually occur.

The classification of losses as well as other items on the income statement are grouped in a manner which tends to emphasize the nature and frequency with which events occur. Losses, as a separate category, do not generally appear on income statements; consequently, loss items are usually found in the extraordinary category or disposal of a segment category.
The empirical phase of this project addressed three specific points:

1. Do investors react to the announcement of a discretionary loss?

2. Is the announcement of a discretionary loss perceived by investors as "bad news" thereby eliciting a negative reaction?

3. Can investor reaction be influenced by timing the loss announcement in a period when certain conditions are present?

The first statistical hypothesis of this study tested investor reaction by comparing the mean price response in the week of loss announcement with the mean price response experienced by the firms in a six-month period prior to the test period. Utilizing a "Z test," the computed Z value was 2.812 which is greater than the critical value of 1.645 at the .05 level of significance. This result requires the null hypothesis that there is no significant difference between the mean price responses be rejected. From this, it can be concluded that the announcement of a discretionary loss is perceived by investors as an event of real economic significance. The importance of this new information is evidenced by a rapid investor response in terms of a significantly greater mean price response in the week the loss is first publicly disclosed compared to the mean price response experienced by the companies in the previous six months of the non-test period. This test indicates that there is a significant investor reaction to the announcement of a discretionary
loss; however, the test focused attention on the magnitude rather than the direction of the investor price response.

The second statistical hypothesis of this study tested whether the announcement of a discretionary loss was perceived by investors as "bad news." If so, the expectation would be a significantly negative investor response as measured by the mean error term in the week of loss announcement. The mean error term ($e_t$) has an expected value of 1.0 with values less than 1.0 indicating a downward price adjustment in the securities of companies announcing a material discretionary loss. A one-tailed Z test was utilized to test if $e_t$ for week 0 was significantly less than 1.0. The computed Z value was -1.683 at the .05 level of significance; consequently, the null hypothesis was rejected. The alternative hypothesis that the mean error term is less than 1.0 was accepted. On the basis of this test, it can be concluded that the announcement of a discretionary loss is perceived by investors as "bad news" and elicits an immediate downward security price adjustment in the week the loss is announced.

The final test performed in this study concerned whether or not the timing of the discretionary loss announcement in a period when certain conditions are present could influence investor response to the loss announcement. Statistical hypothesis for three conditions were formulated: (1) an adverse income condition, (2) depressed
security price condition, and (3) an extraordinary gain condition. For each of these conditions, the null hypothesis that there is no significant difference in investor reaction between those companies where the condition was present and those companies where the condition was not present could not be rejected at the .05 level of significance. On the basis of this evidence, it can be concluded that investor reaction to the announcement of a discretionary loss cannot be significantly influenced by timing the announcement in a period when any one of the test conditions are present.

IMPLICATIONS AND RECOMMENDATIONS

The findings of this study focus attention on several important aspects of contemporary accounting practice, management psychology, and investor reaction to accounting data. Consequently, the evidence presented in this study has implication for both the fields of accounting and finance. From an accounting perspective, it contributes to a better understanding of a long neglected area of accounting practice. An awareness of weaknesses and abuses in an area is a necessary prerequisite for improvement. This study also contributes to the discipline of finance by providing an insight into certain management behavior in reporting losses to the investment community. Also evidence of how the market reacts to loss announcements
lends support to the efficiency of the market in evaluating new information. The remainder of this chapter will discuss the implications of the results of this study and recommendation for improvements will be made where appropriate.

Accounting Implications

The investigation of the nature of an accounting loss revealed several areas where problems already exist or circumstances are such that problems could develop if corrective action is not initiated. Some of these problem areas and potential problem areas are pointed out in the following analysis.

A concern, perhaps not of immediate urgency, yet of major long-run significance, is the apparent and frequent indiscriminate use of the symbol "loss" in contexts where other accounting symbols would be more appropriate in describing the underlying events of interest. Specifically, the problem of employing the accounting symbols expense and loss interchangeably to describe a particular event is neither conceptually accurate nor practically desirable. Careless use of a symbol in inappropriate situations can only serve to confuse recipients of the communication and propagate a further misuse of terms. Furthermore, it represents an undesirable condition for a discipline which seeks to efficiently communicate complex economic events through technical symbols.
The measurement of an accounting loss was analyzed within the context of contemporary practice. Consequently, an accounting loss was measured and found its expression in terms of a quantity of acquisition dollars, that is, the historical dollars assigned initially to the attribute of the resources perceived as having utility when acquired. Measurement of losses under other valuation bases other than historical cost were beyond the scope of this study.

The area examined which exhibited the most perplexing problems from an accounting standpoint is the area of loss recognition. Conceptually, a loss should be recognized when incurred, yet practically this recommendation is often difficult to implement. Those losses which are the result of a diminution of the numerical quantity of a resource usually do not present recognition problems. The evidence to substantiate a loss is apparent and convincing. However, those losses which are the result of a partial or complete impairment in the utility of a resource are not as apparent; hence recognition may not always take place in the same period that the diminution takes place. It is in these circumstances that current practice dictates that the loss be recognized when ascertained. And herein lies the most serious problem in terms of providing an environment susceptible to abuse. If management, for whatever reason, chooses to postpone making the ascertainment that a loss exists, their action will not always be apparent
because often the resource is physically present in its quantitative capacity, yet it has lost its utility or ability to generate a resource inflow. The SEC apparently recognized this potential for abuse in their initial exposure draft of a proposed Accounting Series Release requiring greater disclosure of unusual charges and credits to income.\textsuperscript{1} The Commission expressed concern that many of these large charges appearing in the current period did not appear to be the result of events occurring in that period. As a result, the Commission proposed, among other disclosure requirements, that pro forma statements of income for the past five fiscal years be prepared reflecting an allocation of these material charges to these prior periods on the basis of facts known at the date of filing. In other words, with hindsight, management would be required to indicate in what periods the resource diminution actually took place even though the loss was being recognized all at one time in the current period. Correspondence with Mr. John C. Burton, SEC Chief Accountant, regarding the comment letters received on this proposed amendment revealed the following:

The greatest number of comments made related to the proposed requirement for pro forma statements of operations for the past five years

reflecting the allocation of material charges to these prior periods. Virtually every comment suggested elimination of this requirement.\(^2\)

Apparently, the opposition to this requirement was convincing and, as a result, a substantially "watered down" version of this amendment was finally issued by the Commission as Accounting Series Release No. 138.\(^3\) The five-year pro forma restatement was eliminated.

The time horizon proposed by the Commission for the reporting of this five-year restatement seemed a bit unreasonable (ten days) considering the magnitude and extent of some of the material charges being recognized. However, a similar requirement for annual reports, in the opinion of this writer, would appear to have considerable merit. Management would have sufficient time to assess the significance of prior events on the diminution of resources currently ascertained. With the benefit of hindsight, a reasonable allocation of charges that actually occurred in prior periods can be made for pro forma restatements.

This is not to suggest that such an allocation will directly improve the interpretation of the loss disclosure. The evidence developed in this study indicates that the

\(^2\)Based on personal correspondence between Mr. John C. Burton, SEC Chief Accountant, and the writer, October 22, 1974.

market is efficient in processing the significance of available information as long as disclosure is adequate. However, a pro forma restatement of prior years' income could have important psychological effects which indirectly could improve financial reporting in this area. In instances where management consciously postpones recognition of the impact of adverse events until a period when certain conditions are present, the motivation for such action often lies in management's perception of some benefit to be derived. Firstly, management is able to report greater earnings in those periods where losses have occurred but are unrecognized. Secondly, a lesser negative investor response is anticipated if all the bad news is released at one time especially if reported when certain other conditions are present. Regarding the second aspect, the evidence provided in this experiment does not support the effect of a lesser negative reaction when certain conditions are present. If management were required to prepare a pro forma restatement of prior income for losses ascertained in the current period but relating to diminutions in prior periods, it would appear that the perceived benefits of postponing loss recognition would be eliminated. In addition, calling attention to losses unreported in prior periods would perhaps make management more aware of the potential legal ramifications if the non-recognition appeared to be deliberate.
The Financial Accounting Standards Board has currently under study a broad project concerning the conceptual framework for accounting and reporting. The AICPA appointed a special group which studied and reported their findings concerning the objectives of financial statements. The solution to many current problems in accounting would be facilitated if the objectives of financial reporting could achieve some consensus. Those accounting procedures and practices that would be preferred are those which best accomplish the stated objectives. Classification of items on the income statement is a good case in point. Classification schemes are meaningful and informative if they serve the purpose they were designed for. Until such time as the purpose or objective of income reporting is agreed upon, classification of items on the income statement will continue to overlap in an attempt to serve a variety of non-specified purposes. The point is well-illustrated by the long-standing struggle of the Accounting Principles Board to determine what should or should not be included on the income statement, what


items are or are not extraordinary, what is or is not a segment of a business, what item should or should not be disclosed separately. Losses are not meaningfully classified on the income statement. It would appear that losses of a discretionary nature should be separately identified. Readers of the statement should be made aware that the loss item could perhaps have been recognized in a prior year or in a subsequent year, but the fact that it appears in the current year is the result of a management decision to recognize it. This need was recognized by the Objectives Study Group when discussing desirable features of financial statements:

Each of the financial statements should be structured to enhance the user's ability to assess the following: . . . The extent to which the occurrence of sacrifices and benefits or their allocation to time periods, is discretionary or arbitrary. Examples are contributions, unusual research expenditures, or the recognition of gains or losses whose timing can be controlled.  

Implications for Management

The data developed in this study regarding investor reaction to loss announcements confirm management's suspicion that the loss announcement is viewed as "bad news" by investors and may reflect unfavorably upon their stewardship and administration. Consequently, if management believes that implementing a financial bath when

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certain conditions are present would somehow mitigate or minimize an expected negative investor reaction, it would be in their self-interest to implement it when the conditions are right. Discussions of financial bath activity in the financial literature indicate that an attempt to minimize an adverse investor reaction may very well be the basis for the observed bath activity. Even though management may think this effect will occur, the evidence developed in this study indicates that the rationale for implementing a bath reflects more of a "hoped for" effect rather than an "actual" effect. The measurement of investor reaction to the announcement of a discretionary loss was not significantly different in those companies where the conditions were present and those companies where the conditions did not exist. Consequently, investor reaction cannot be influenced by timing loss recognition and, hence, there is no advantage or benefit in following this practice. Management should be made aware that the market is efficient in processing information about events that have a real economic effect on the company's expected future returns. Practices such as timing the loss announcement when other conditions are present do not represent events of real economic significance and, hence, are ignored by the market.
Implications for Finance

The findings of this study are fully in accord with and lend support to the efficient markets hypothesis. The announcement that there has been a diminution in an entity's resources without creating an equivalent utility was viewed by the market as news of an event with real economic significance. Consequently, the announcement of a discretionary loss elicited a significant investor reaction as evidenced by above-average security price changes in the week the loss was disclosed. Investor reaction was rapid and negative. Events and practices which have no bearing on a company's ability to earn a future return should be ignored by the market. This expectation was borne out by this research when it was shown that the market was not influenced by timing the loss in a period when certain extraneous conditions were present.

The methodology employed in this study seems particularly appropriate for testing the alleged effects or consequences of certain accounting practices and procedures. It is not unusual for authoritative bodies such as the Financial Accounting Standards Board, when hearing arguments in favor of or in opposition to a particular practice under consideration, to hear allegations that a certain pronouncement would have an adverse effect on the market price of the securities of the firms involved. This methodology can be utilized to substantiate the
alleged effects thereby providing evidence that can be used as basis for evaluating the merits of the arguments.

The 60 companies analyzed in this study were drawn from those listed in the 1974 Fortune 500. While the Fortune 500 companies do not represent a random selection of business firms, from an accounting standpoint, they are probably the most important single group of companies to consider. As a group, they have a substantial impact on the entire U.S. economy in terms of contribution to gross national product, utilization of the nation's resources, and the employment of a labor force. Consequently, their activities are closely monitored by all sectors of the economy and are subject to public scrutiny. While the results and analysis developed in this study cannot be validly generalized beyond the Fortune 500 companies, it is important to note that the accounting and reporting practices employed by these firms tend to mirror contemporary practice and would be quite influential in establishing the acceptability of any new accounting or reporting presentations.

Financial bath activity was observed in this study for a one-year period extending from October, 1972, through September, 1973. The time period under study was necessarily limited because of the task of manually accumulating the necessary data. Recent stock price data and information regarding discretionary items are not available on the
Compustat Tapes, thereby requiring a manual accumulation of the data. Nothing was discovered which would indicate that the period under study was unusual. The frequency rate of bath activity was reasonable when compared to other studies which were specifically designed to measure the frequency with which this activity occurs. However, it would be beneficial if the time period under study could be extended to cover several years.

It is strongly suggested that whenever a material discretionary loss is recognized in a company's current financial statements that management be required to identify those events in the current period which were the cause of the diminution in company resources. Lacking a reasonable identification, an allocation and pro forma restatement of prior results would, in the view of this writer, serve to discourage financial bath activity.
BIBLIOGRAPHY
BIBLIOGRAPHY

A. BOOKS


, and A. C. Littleton. An Introduction to Corporate Accounting Standards. American Accounting Association, 1940.


B. ARTICLES AND PERIODICALS


C. AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS


American Institute of Certified Public Accountants. Accounting Trends and Techniques in Published Annual Reports. New York: American Institute of Certified Public Accountants, published annually.

D. UNPUBLISHED SOURCES


E. MISCELLANEOUS


APPENDIXES
APPENDIX A

NAMES OF SAMPLE COMPANIES
APPENDIX A

NAMES OF SAMPLE COMPANIES

1. Addressograph Multigraph
2. Airco
3. American Bakeries
4. American Can
5. Andersen Clayton
6. Atlantic Richfield
7. Bangor Punta
8. Bluebird Incorporated
9. Boise Cascade
10. Celanese
11. Cerro
12. The Charter Company
13. Cities Service
14. Collins Radio
15. Combustion Engineering
16. Commonwealth Oil Refining
17. Continental Can
18. Crown Zellerbach
19. Dayco
20. Ex-Cell-O
21. Fibreboard
22. Fleetwood Enterprises
23. FMC
24. General Dynamics
25. Genesco
26. Getty Oil
27. Gulf Oil
28. Handy and Harman
29. Heinz H J
30. Heublein
31. Indian Head
32. Interstate Brands
33. Kaiser Steel
34. Kraftco
35. Lowenstein M and Sons
36. LTV
37. Magnavox
38. Mattel
40. Mead
41. Murphy Oil
42. NCR
43. Ogden
44. Olin
45. Pennwalt
46. Pet Incorporated
47. Questor
48. Revere Copper and Brass
49. Schlitz Brewing
50. Southwest Forest Industries
51. Squibb
52. Standard Oil (Ohio)
53. Stevens J. P.
54. Sunstrand
55. Sybron
56. Tally Industries
57. Time, Inc.
58. Ward Foods
59. Wheelabrator-Frye
60. Whittaker
APPENDIX B

TYPE OF INFORMATION GATHERED FOR EACH COMPANY
FIRM DATA SHEET

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<td>Net income</td>
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Description of discretionary losses:

Plan for facility retirement and asset redeployment of certain metal operations and certain other operations $120,100,000
(announced on 10-19-72)

Prior Year Information: Net Income $72,931,000

Other:

Other Comments:

Check Wall Street Journal:
10/19/72 - 6:1
1/30/73 - 30:3
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**Weekly Security Price and Dividend Data**

**Name:** Example Company  
**Date:** 10-19-72
APPENDIX C

CORRELATION COEFFICIENTS AND COEFFICIENT OF DETERMINATION
APPENDIX C

CORRELATION COEFFICIENTS AND COEFFICIENT OF DETERMINATION

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17.76/7778  7.67/8637

THE MEAN OF CORRELATION COEFFICIENTS = 0.2951179

THE MEAN OF COEFFICIENT OF DETERMINATION = 0.1279830
Eugene Raymond Rozanski was born in St. Louis, Missouri, on February 6, 1937. He attended Sacred Heart Grade School and graduated from Hadley Technical High School in June, 1955. He attended Washington University in St. Louis and University of Missouri at Columbia where he graduated in June, 1959, with a Bachelor of Science Degree in Business Administration with a major in accounting. Upon graduation, he was employed by Rexall Drug Company in St. Louis as a cost accountant until drafted into the U.S. Army in April, 1960. After serving two years, he was honorably discharged in May, 1962, and accepted employment with Lappin & Spilberg, CPAs in Beverly Hills, California, as a staff accountant. In September, 1963, he was employed by Pet Incorporated in St. Louis as a senior accountant until September, 1966, at which time he enrolled in a graduate program at Saint Louis University. He received a Master of Science Degree in Commerce with a major in finance in February, 1968. In June, 1968, he enrolled in the doctoral program in accounting at Louisiana State University at Baton Rouge. While studying for the doctorate he held a teaching assistantship at LSU. In January, 1971, he was employed
as a full-time instructor at Southern Illinois University at Carbondale. In addition to his academic degrees, he holds the CPA certificate from the State of Illinois.
Candidate: Rozanski, Eugene Raymond

Major Field: Accounting

Title of Thesis:
Investor Reaction to the Announcement of Discretionary Losses

Approved:

EXAMINING COMMITTEE:

Date of Examination:
November 25, 1975